

# The SilverLink 4

## For Silver Reed & Knitmaster electronic machines



This cable link enables DesignaKnit to control interactive knitting on the Silver Reed modular electronic knitting machines SK830, SK840, SK860, & SK890, and also on the Knitmaster 550, 560, and 580 machines.

The Knitmaster 500 can also be used if connected with the SK500x adaptor.

Neither the EC1 nor PC10 are required for knitting with this Silverlink, but a curl cord is required. The curl cord is not included with this link.

This link can be used with the normal carriage, the electronic lace carriage, or the AG50 intarsia carriage.

No separate stage of downloading a pattern has to be managed by the user: downloading happens automatically when starting to knit.

### Part List

1. The large plastic Silverlink box.
2. A power supply unit.
3. A mains plug for the power supply unit.
4. A USB connecting cable.
5. CD with USB driver and test program.

### Fitting the cable

Attach the mains lead to the power supply unit and plug into the mains power supply. The thin cable which is permanently attached to the power supply unit terminates in a small jack plug which attaches to the Silverlink box. The straight end of the curl cord of the knitting machine connects to the female DIN socket on the Silverlink 4.

Early models of this cable link had both serial and USB connectors. Later models have only USB connectors. If the serial connector is being used, ignore the instructions about installing the driver. The rest of this manual assumes the USB connector is being used.

Connect the square end of the USB lead to the socket next to the power inlet on the Silverlink 4, and connect the flatter rectangular end to a standard USB port on the computer.

## **Installing the Driver**

The process varies according to the version of Windows and whether the same driver already happens to be installed for a similar device. All the DesignaKnit cable links, and many other devices use the same 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.

For the driver for Windows CE, please visit <http://www.ftdichip.com/Drivers/VCP.htm>

If your DesignaKnit computer is not connected to the internet, go straight to the section titled "Installing the driver from CD".

## **Installing the driver from the internet**

Insert the USB cable into a standard USB port on your computer. Verify that the red and green LED flash at least once and are turned off after that.

When Windows starts, or if the link is connected while Windows is running, it will recognize that the cable link has been attached and may show a message saying that it is searching for a driver. A message may appear to say that devices are being installed or it might say that the best driver is already installed. If a problem is reported please see the Troubleshooting section.

If Windows does not react when the cable link is connected for the first time, it could mean that a similar USB device has previously been installed on the computer. In this case, Windows might not search or request a driver for the cable link but may just continue to use the driver that is already installed, which may be too old to work well with your current version of Windows. If Windows does not react when the cable link is connected for the first time, please see the Troubleshooting link about updating the cable link driver.

Finally you may be presented with an instruction to restart the computer - if so, do it.

Now please go to the section titled "Telling DesignaKnit 8 which cable & port number to use"

## **Installing the driver from CD**

Do not connect the DesignaKnit cable link yet. If the cable is already connected, disconnect it.

If the cable link was purchased after DesignaKnit 8, insert the CD that came with the cable link, otherwise insert the DesignaKnit CD to install the driver (if the DesignaKnit Setup program opens, do not install DesignaKnit again - close the window).

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. Run the program whose filename begins with USBlinks\_DriverInstaller. The driver will then be installed. Finally you may be presented with an instruction to restart the computer - if so, do it.

Insert the USB cable into a standard USB port on your computer. Verify that the red and green LED flash at least once and are turned off after that.

## Telling DesignaKnit which cable & port number to use

For DesignaKnit 7, it is important to use the final program update for this cable link. The latest DesignaKnit 7 release is available here: <https://www.softbyte.co.uk/dk7updates.htm>

1. Open Interactive Knitting and close the opening dialogue. Select Options / Knitting Machine.
2. At the list of knitting machines, highlight the required Silver Reed electronic machine by left clicking it, then click the Setup button.
3. Make sure that the SilverLink 4 is powered on and that the green LED is on, and that it is connected by USB cable to your computer.
4. **For DesignaKnit 7 only:** Make sure the "Use Silverlink 5" option is NOT ticked and click on the "Find SilverLink 4" button.
5. **For later versions:** Under Link or Cable link, select "Silverlink 4" and click on the Find Link button.
6. When DesignaKnit finds the port number it will automatically enter that number into Knitting Machine Setup. If it reports that the link was not found, go to the section titled Troubleshooting for information about updating the driver.
7. Finish by clicking OK and OK again until back again at the main Interactive Knitting screen.

If the link was detected, DesignaKnit will now automatically copy the SilverLink 4 port number setting to all Silver Reed electronic machines on the list in the Knitting Machine Selection dialogue. It is therefore not necessary to repeat this process for any other Silver Reed machines.

## Interactive Knitting with the SilverLink 4

When entering the Interactive Knitting section of DesignaKnit, there is an opening dialogue that invites knitting either a shape or a stitch pattern.

### Knitting a piece from a shape file

If you select a shape file from the opening dialogue or from the menus, and then a garment piece, you then may have a choice about whether to knit only the shape, or the integrated piece. If the integrated piece is offered, it means that the pattern that has been positioned on the garment piece, either by dragging the outline of the garment piece over the stitch pattern in Stitch Designer, or by dragging the stitch pattern over the garment piece in Original Pattern Drafting. If knitting an integrated piece, the stitch pattern is used to control needle selection for any of the machine knitting methods of knitting. Whether integrated or not, shaping instructions are given while you knit.

### Knitting a stitch pattern swatch

If you select a stitch pattern from the opening dialogue or from the menus, this will prepare an unintegrated swatch without a garment shape, and the number of stitches and rows to knit will be requested. If you enter a number of stitches that is at least one horizontal pattern repeat, the pattern will then be replicated automatically as required, across the full width of the needle bed if necessary.

## Starting to knit

The real carriage must be on the same side as the on-screen carriage in the top right window. In DesignaKnit 8, the on-screen carriage starting position is controlled as follows. If the colour changer is configured on, it is set to the side required by the colour changer. Otherwise: if knitting a swatch, it is controlled by the option "Start swatch with CAL" in knitting machine setup; if knitting an unintegrated piece it is controlled by the "Shape Only" settings that are on the Options menu; if knitting an integrated piece, it is controlled by either of the following – the CAL option in the Integrate dialogue (in Original Pattern Drafting or Stitch Designer), or by Original Pattern Drafting's knit direction indicator.

Click on the amber traffic light button for cast-on and/or welt instructions and click on OK when ready to proceed.

A pop-up dialogue gives instructions for the starting positions of the point cams. These starting positions are defined by the width of the swatch or the maximum width of the garment piece, and the knitting is centred on the needle bed. You can control the patterning area by moving the point cams – see below for more information. When you are ready to proceed, click OK.

The pattern is automatically downloaded to the SilverLink box before beginning to knit and remains in its memory until the next pattern or section of pattern is downloaded. The time taken to download a pattern depends on its size and complexity.

Large patterns are downloaded and knitted in sections - see details below under Large Patterns. The process is fairly seamless and when it is necessary to download the next section of a large pattern, a progress bar will appear for a few seconds or longer, indicating that the download is taking place. Wait until it completes before continuing to knit.

When a stitch pattern rather than a shape file has been selected, the carriage passes for a single repeat of the pattern will be downloaded, so for a small pattern repeat this may only take a few seconds. When you knit, however, the pattern will repeat horizontally and vertically as necessary.

When selecting an integrated shape, the download will consist of the number of carriage passes required to work the whole garment piece, regardless of the size of the single pattern repeat, so downloading could take considerably longer. In the case of an extremely large jacquard pattern, for instance, or lace, this could require a greater number of carriage passes than the maximum that the memory can hold, so the pattern will be downloaded in sections, as described below under Large Patterns.

When selecting shape-only, data representing a blank pattern will be downloaded in order to prevent needles from selecting.

Please wait until the download progress bar completes before beginning to knit.

## Large Patterns

The SilverLink 4 can hold data for approximately 4092 carriage passes regardless of the pattern width. The number of carriage passes necessary to complete a row of lace knitting, or a pair of Jacquard rows, contributes to this total. An exceptionally large pattern that requires more passes than this maximum figure will be downloaded in sections. The second section of a large pattern will automatically download after the first section has been knitted, and so on. The countdown that is displayed in the Countdown and Shaping Instructions window will arrive at zero at the row where one section has been knitted and an automatic download will then begin. The countdown is there to warn you to stop knitting when it reaches zero, because something is about to happen – in this case a download. Stop knitting until the download is complete. (The countdown also reaches zero where shaping needs to be done or there is a colour change instruction.)

## Adjusting the point cams during knitting

You can adjust the distance that the carriage must move across the bed, by manually moving the point cam that is further from the carriage. The point cams should be outside the needles that are in working position. By keeping the point cams fairly close to the worked needles, the movement of the carriage can be kept to a minimum. This adjustment of point cams can be done at any row. However, the point cam that is nearer the carriage must never be moved, or the pattern will shift sideways.

## Pausing during Interactive Knitting

If you stop knitting you can later carry on from where you left off. When you click the red traffic light button, or go to another section of DesignaKnit, your place in the knitting will be remembered. After stopping knitting, you can close down Windows and turn the Silverlink power off without losing your place. Do not disconnect the Silverlink or turn off its power supply until you have stopped the knitting process by clicking the red traffic light or pressing the Esc key. If the Silverlink is disconnected before the red traffic light is clicked, Windows can make the Silverlink port unavailable for a while and DesignaKnit may stop working until the computer is restarted.

DesignaKnit keeps a separate note of where you have got up to for each knitting machine, so you can knit different pieces on different machines without needing to finish one piece before starting another.

If you need to unravel any rows, stop the knitting process by clicking on the red traffic light. Reset the row counter in DesignaKnit using for example the down arrow key, making sure that when you restart knitting the real carriage is on the same side as the on-screen carriage. The SilverLink 4 will comply with the change without having to download the pattern again. Click the green traffic light and click OK for the point cam positions and start knitting again.

## Safety

Please make sure that while knitting, the Silverlink is not covered. This is so that the heat that it generates can dissipate.

Do not leave the Silverlink's power supply unit connected to the domestic electricity supply unnecessarily for long periods when you are not knitting: please turn off at the wall switch. Apart from being good safety practice, this will prolong the life of the power supply unit and Silverlink, as well as saving power.

## Updating the Driver from the Internet

From time to time the manufacturer of the chips in the cable link publishes a new driver because a modification may be necessary for it to work with newly published Windows updates. We recommend that from time to time you follow the instructions on this webpage to keep the driver updated. If you have a problem with the cable link at any time it is a good idea to update the driver before contacting technical support.

<https://softbyte.co.uk/updatingthedriver.htm>

## Troubleshooting

- If Windows reported a problem when trying to install the driver from the internet, or Device Manager shows a yellow error icon next to the serial port, or there is a yellow error icon next to an "Unknown device", try using the driver installer. Either follow the

directions in this document under "Installing the driver from CD", or from <https://www.softbyte.co.uk/cablelinksdriver.htm>.

- If your DesignaKnit computer is not connected to the internet, download a driver installer here and transfer it on a pen drive: <https://www.softbyte.co.uk/cablelinksdriver.htm>.
- Updating the cable link driver: please see <https://softbyte.co.uk/Updatingthedriver.htm>
- For problems with interactive knitting, please see <https://softbyte.co.uk/interactiveknittingwithbrotherpassapscreenlinks.htm>
- While interactively knitting, a message sometimes appears saying that the carriage has moved in the wrong direction, when it has not. Please see this webpage: <https://www.softbyte.co.uk/carriagedirectionerrorswithsilverlinks.htm>
- The stitch pattern on the knitted work is not the same as the pattern on the interactive knitting screen. Please see this webpage: <https://www.softbyte.co.uk/mispatterningwithsilverlinks.htm>

## **Updates to this manual**

The document you are reading was updated in March 2017.

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

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