

**Utility Software
Data Connection 70S 70R 19S 19R
Instruction Manual**

**Please read this instruction manual
carefully before installation.**





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1. Introduction

Data Connection 70S 70R 19S 19R (“Data Connection”) is the software included in the package of 70S/70R/19S/19R, the splicer series manufactured by Fujikura.

Read this installation manual before installing Data Connection

2. System Requirements

Computer and processor	1.6 gigahertz(GHz) processor or higher (In case Core™i3, Intel Corp)
Operating System	Microsoft Windows Vista SP2 (32bit) Microsoft Windows 7 SP1 (64bit / 32bit) Microsoft Windows 8 *The operating system must be updated by Windows Update
Memory	2GB (Windows Vista SP2) 4GB (Windows 7 SP1, Windows 8)
Hard Disk	100MB available space
Drive	CD-ROM or DVD drive
Display	1024x768, or higher resolution 24bit, or higher color
Other	USB 2.0 Port Capable of Internet Access, 56kbps or higher Broadband access is recommended

3. Install

Login to the PC using an account with administrator privilege

Administrator privilege is required when installing the software.

If you do not have an account which has administrator privilege, ask the supervisor of the PC for installation.

Exit all programs running on the PC

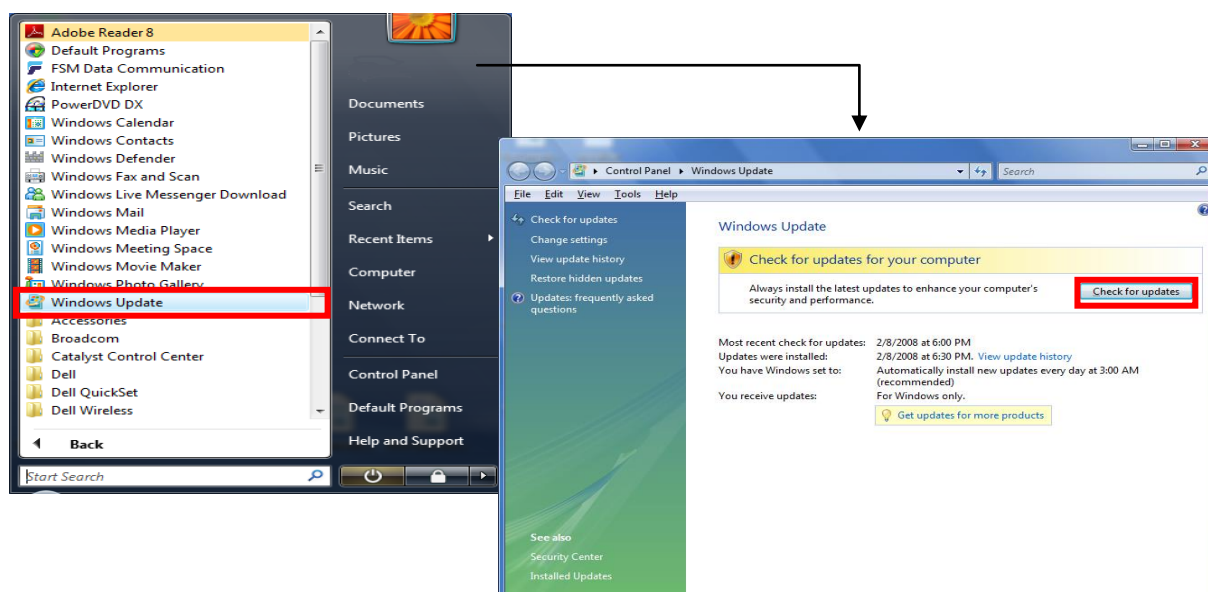
Exit all programs running on the PC. Some programs may prevent installation. Specifically do not install Data Connection when the communication software for another series of splicer is running.

Perform Windows Update or Microsoft Update

Operating System must be updated by latest update.

Perform Windows Update or Microsoft Update before starting installation.

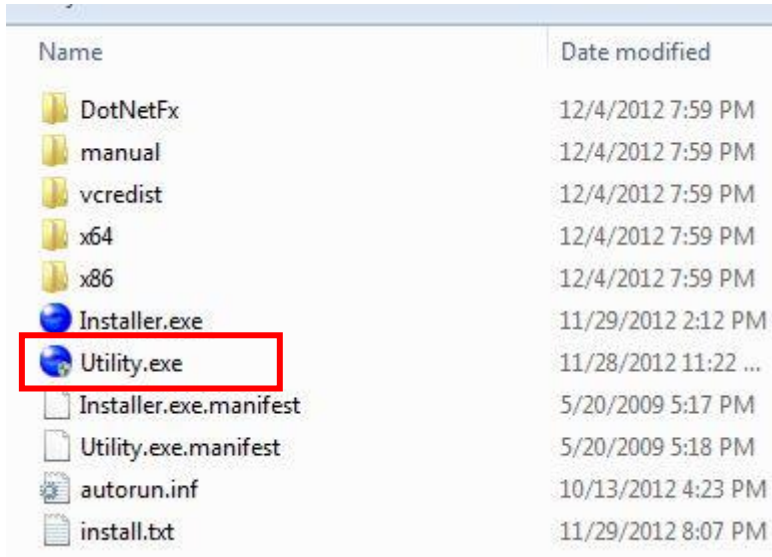
To go to Windows Update or Microsoft Update, select [Start] > [All Programs] > [Windows Update] or [Microsoft Update].



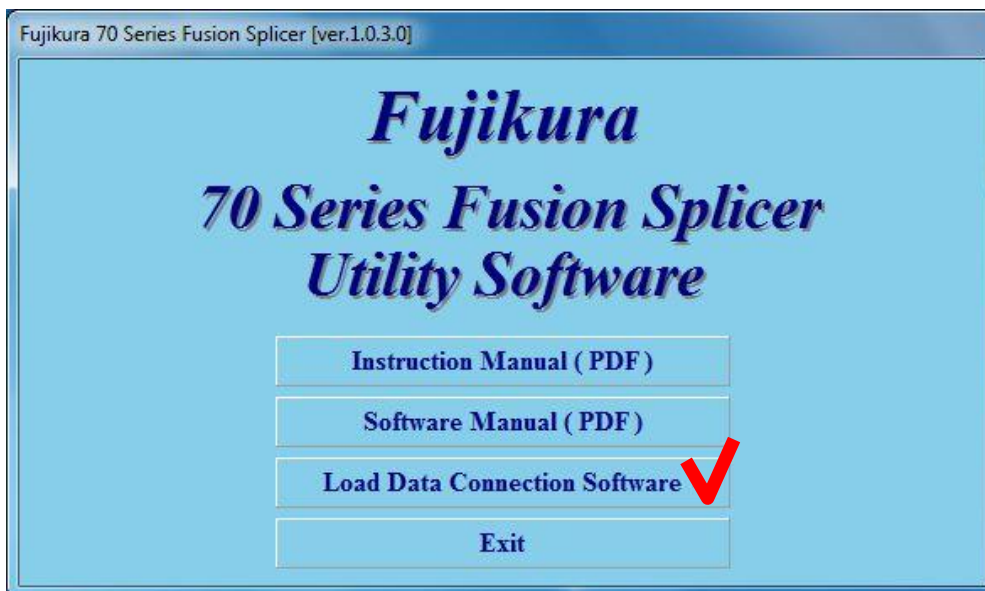
Internet connection is necessary in order to perform Windows Update or Microsoft Update.

4. Install the Software

- (1) Confirm that the USB cable is **not connected**.
- (2) Insert the instruction CD into CD-ROM or DVD drive.
- (3) After a few seconds, instruction menu will be shown automatically.
If the menu is not shown, double-click “Utility.exe” which is in the root of the instruction CD.



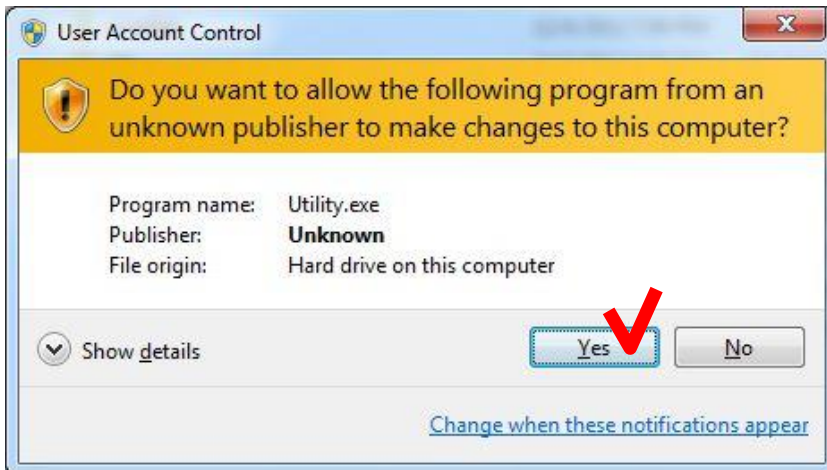
- (4) Click the [Load Data Connection Software] button.



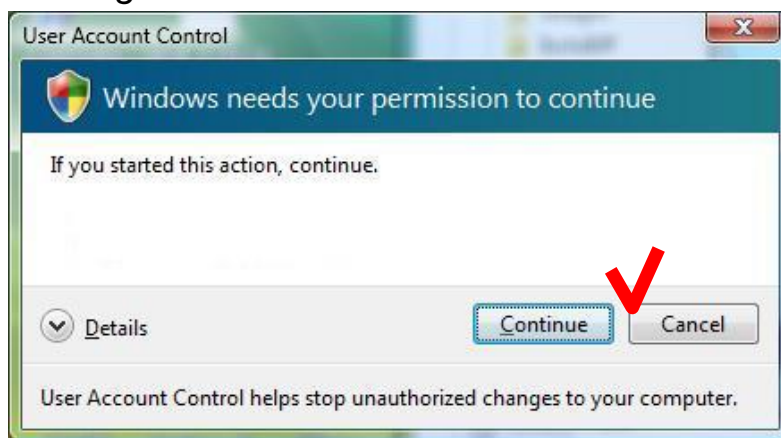


“User Account Control” window may be shown during installation. (In the case of Windows 7 or Windows Vista)

Click [Yes] if “Do you want to allow the following program from an unknown publisher to make changes to this computer?” message is shown.



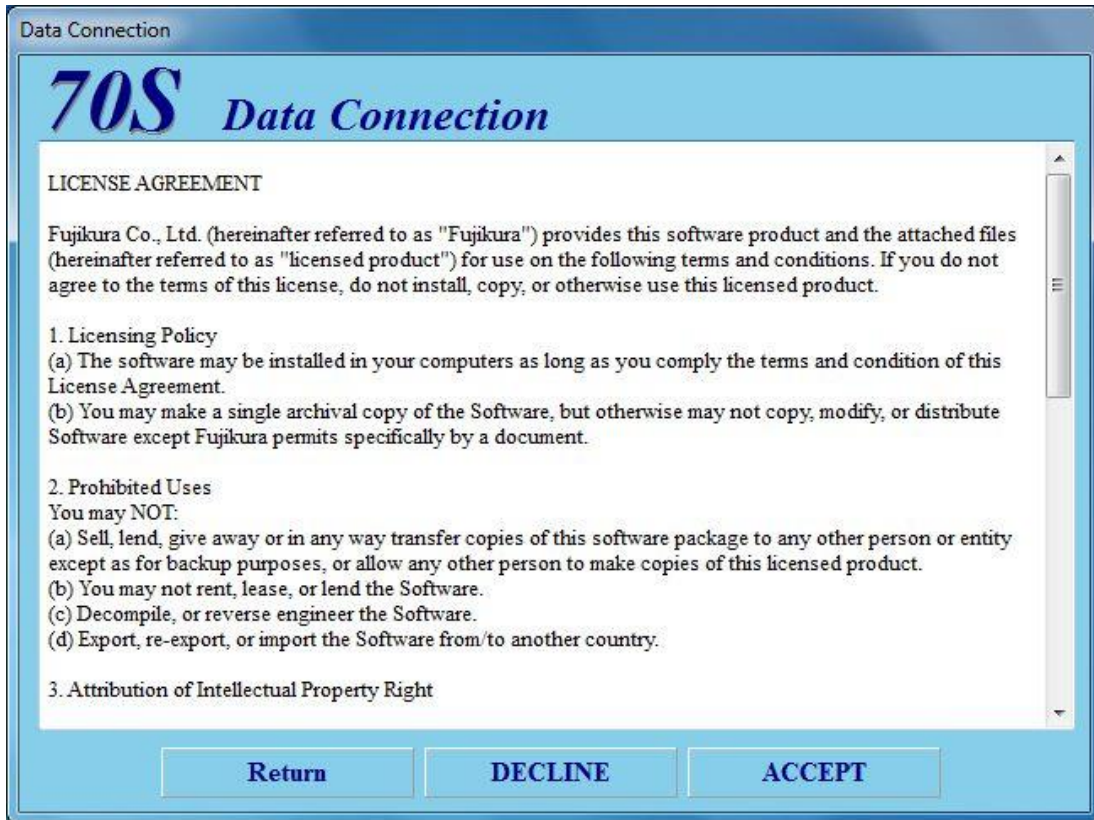
Click [Continue] if “Windows needs your permission to continue” message is shown.



If you run the installer without administrator privilege, the following message will be shown. In this case, login with an administrator account, and run the installer.



- (5) License Agreement confirmation window will be shown.
Click the [ACCEPT] button if you accept the License Agreement.
If you do not accept the License Agreement, click the [DECLINE] button.
In this case, installation will be cancelled.



If the DataConnection has already been installed, the uninstall menu will be shown.

- (6) Installation of necessary software and driver will start.

Necessary software and driver for Data Connection

- Microsoft .NET Framework 4 Client Profile
- Microsoft Visual C++ 2010 Redistributable
- Usb Driver

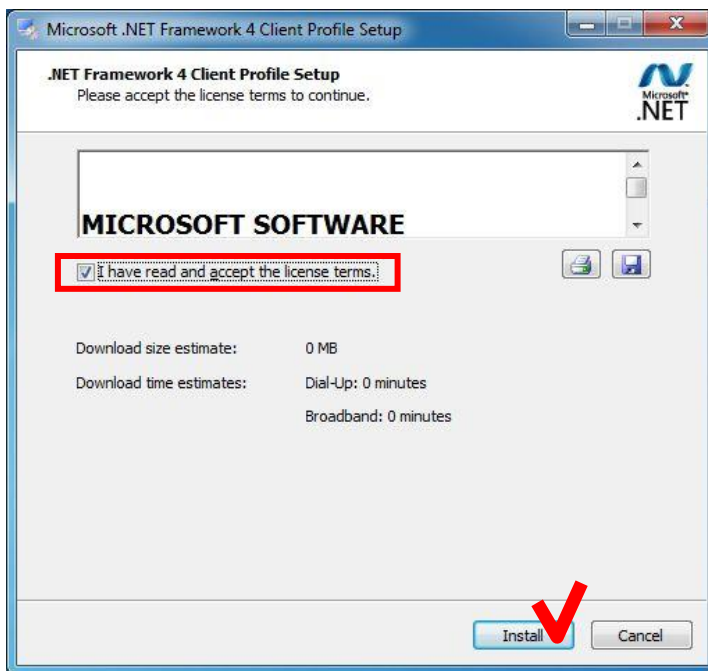
(a) Installation of Microsoft .NET Framework 4 Client Profile

If “Microsoft .NET Framework 4 Client Profile” has not been installed, [Microsoft .NET Framework 4 Client Profile Setup] window will be shown.

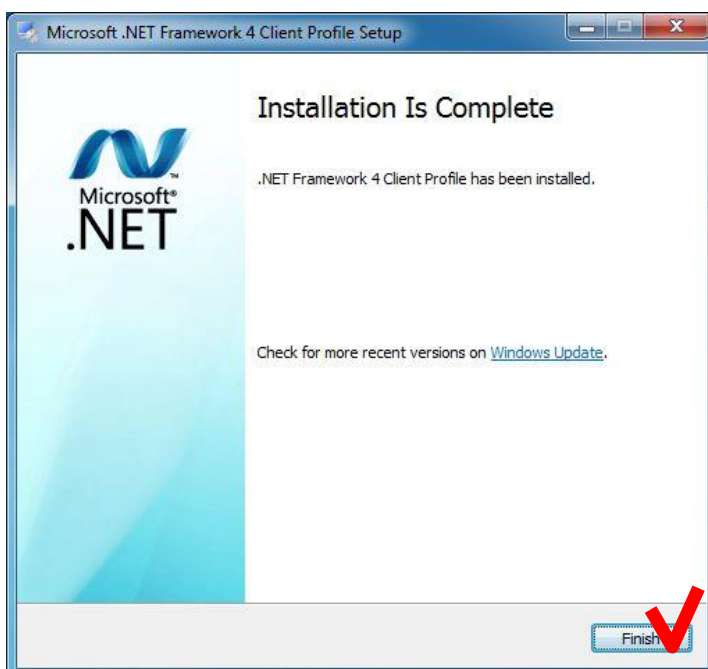


If the installation is not necessary, the following window will not be shown. Proceed to following page

Check [I have read and accept the license terms] and click the [Install] button.



When the following window is shown, click the [Finish] button to complete the installation.



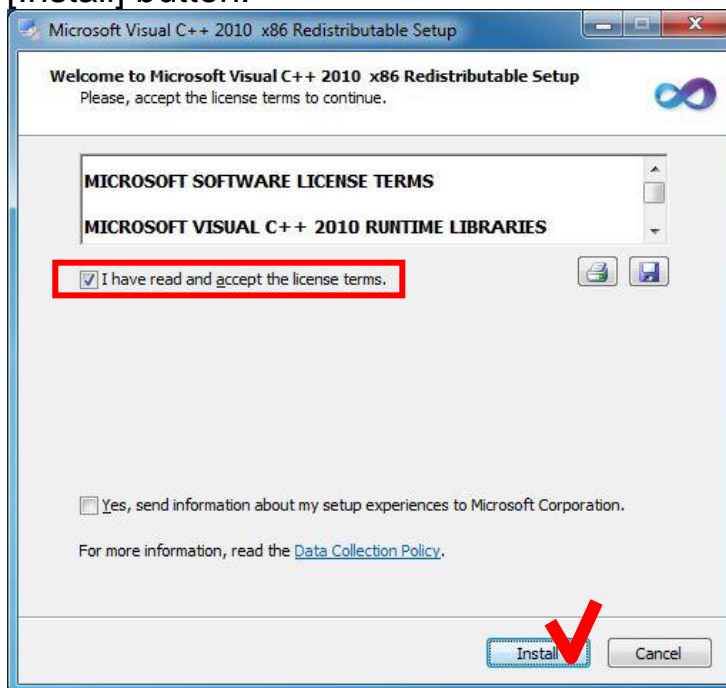
(b) Installation of Microsoft Visual C++ 2010 Redistributable

If “Microsoft Visual C++ 2010 Redistributable” has not been installed, [Microsoft Visual C++ 2010 Redistributable Setup] window will be shown.

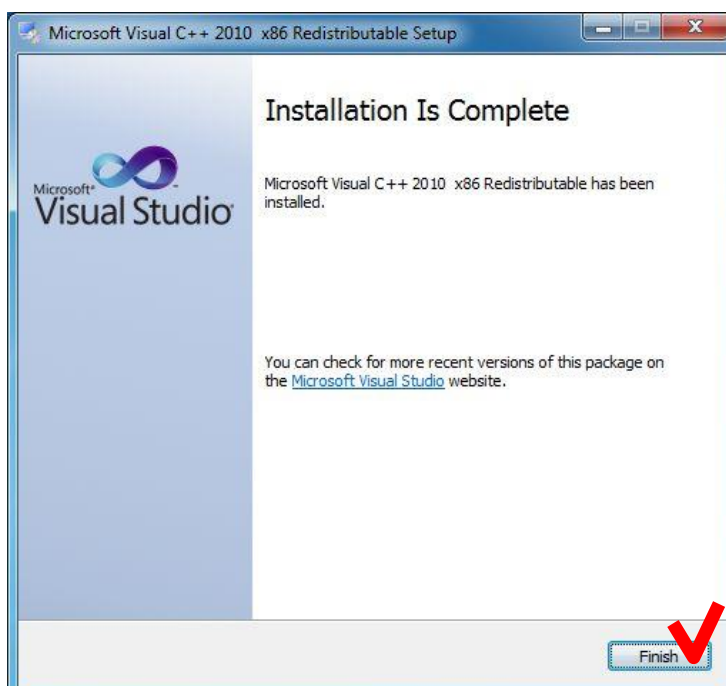


If the installation is not necessary, following window will not be shown. Proceed to following page

Check the [I have read and accept the license terms] and click the [Install] button.



When the following window is shown, click the [finish] button to complete the installation.



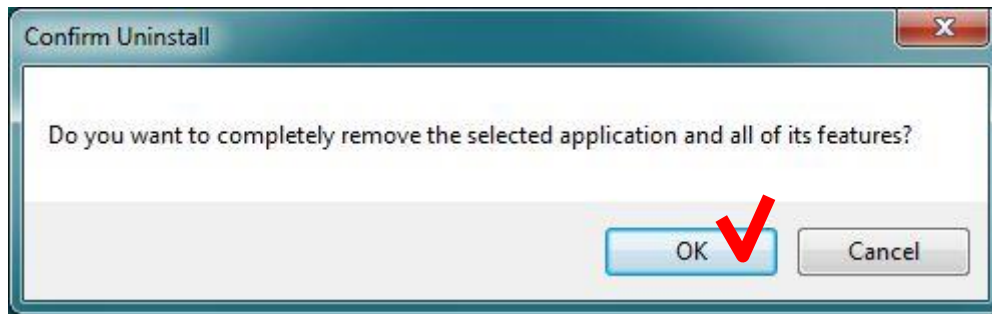
(c) Uninstallation of existing USB driver

If the old version of USB driver has been installed, [Confirm Uninstall] window will be shown.

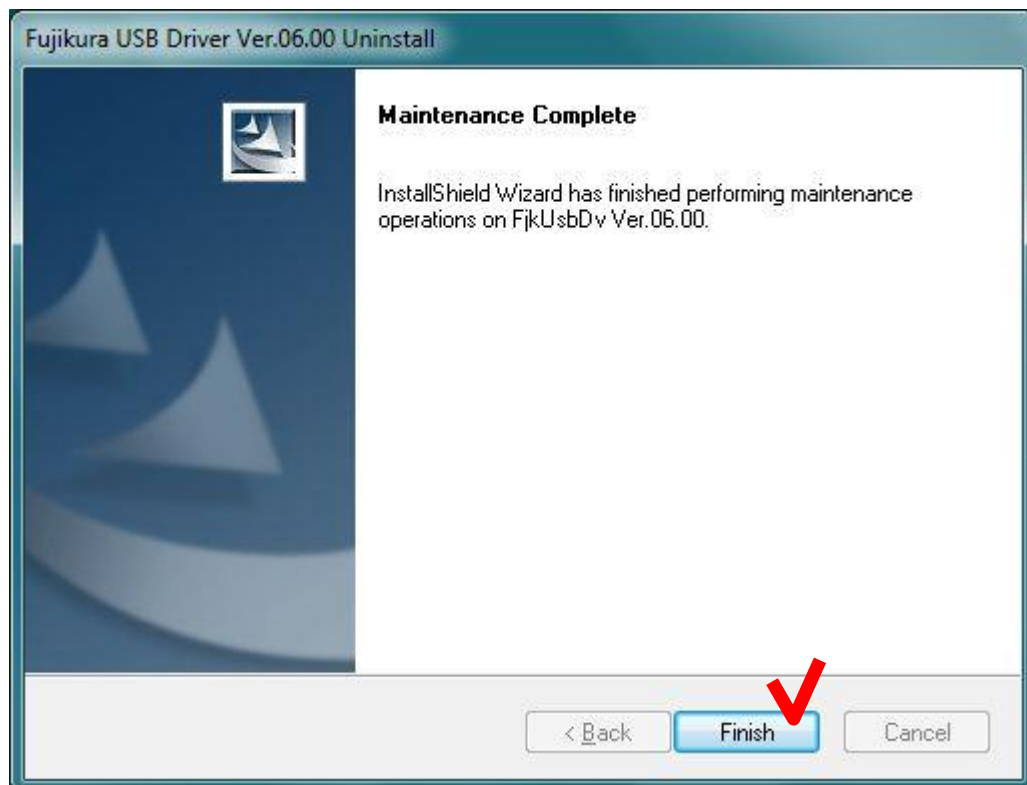


If the uninstallation is not necessary, the following window will not be shown. Proceed to following page

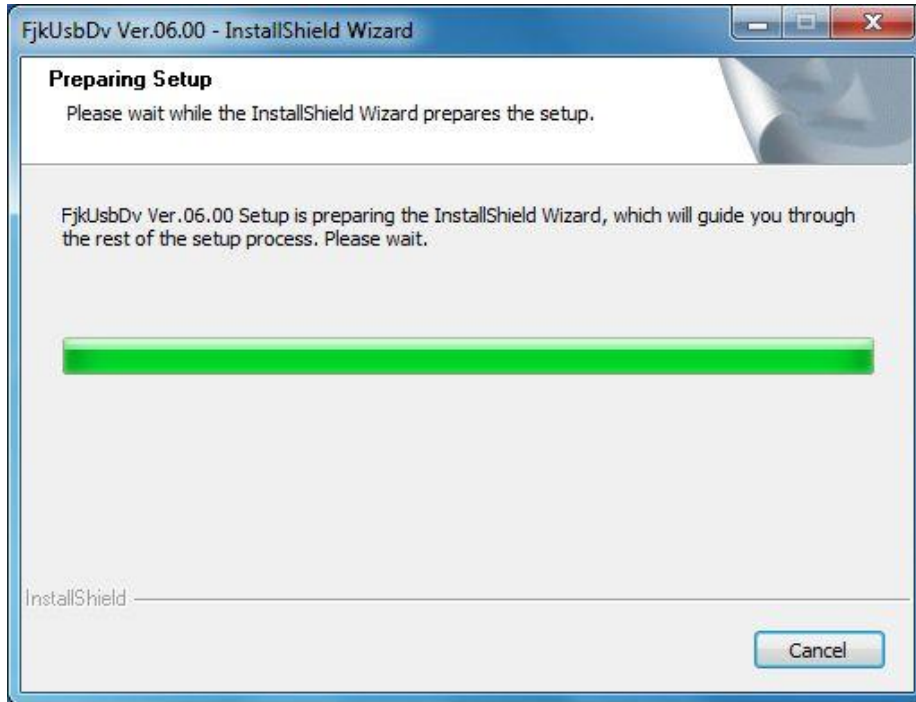
Click the [OK] button.



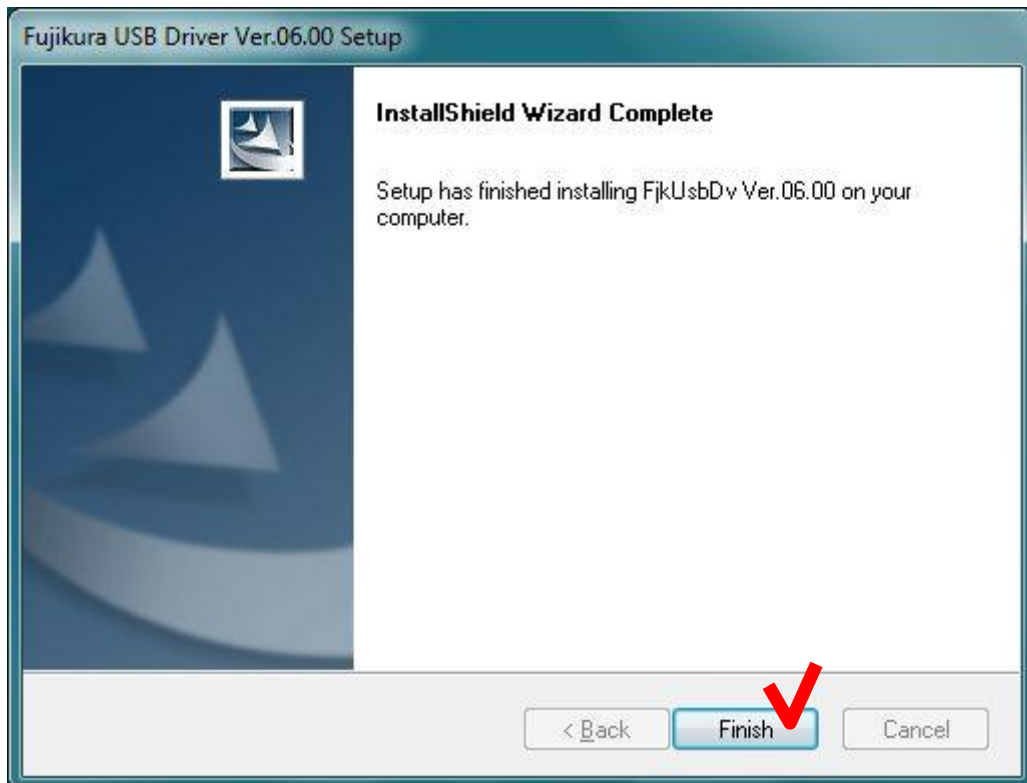
When the following window is shown after the uninstallation, click the [finish] button to complete the uninstallation.



- (d) Installation of USB driver
[FjkUsbDv InstallShield Wizard] window will be shown.



When the following window is shown after the installation, click the [Finish] button to complete the installation.



Install the Software

If the following message is shown, click the [Install] button.



If the following security message was shown, click "Install this driver software anyway".



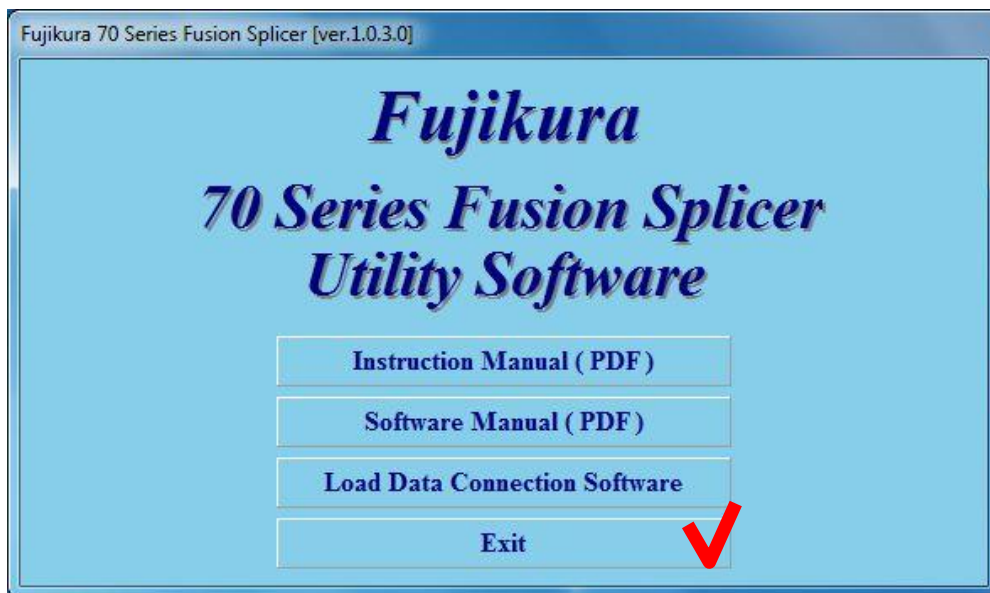
- (7) Installation of the main program of Data Connection will start. During the installation, the following message is shown.



- (8) When the following message is shown, click the [OK] button to complete the installation.



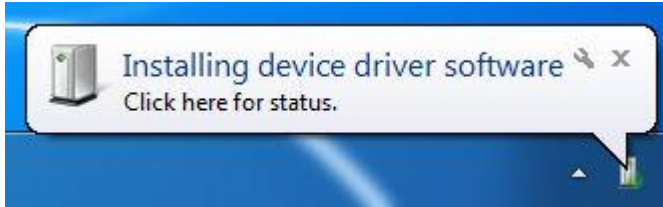
- (9) Click the [Exit] button to close the menu.



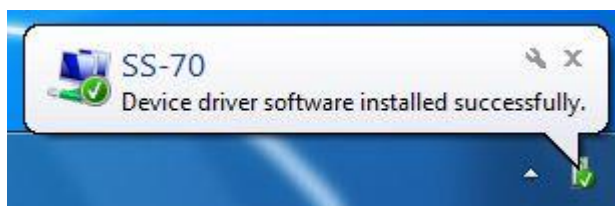
(10) Install device driver.

Turn on the splicer and connect to the PC with USB cable.

“Installing device driver software” message will be shown at notification area in task bar.



When the driver installation is complete, “Device driver software installed successfully” message will be shown.



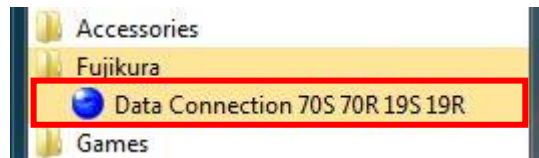
If the “Device driver software installed successfully” message was not shown in a few minutes, please read [Installation of the Device Driver Failed] in [Chapter 7: Troubleshooting]

5. How to use the Data Connection 70S 70R 19S 19R

Double-click the shortcut on the desktop or click “Data Connection 70S 70R 19S 19R” in the [Start] > [All Programs] > [Fujikura] menu.



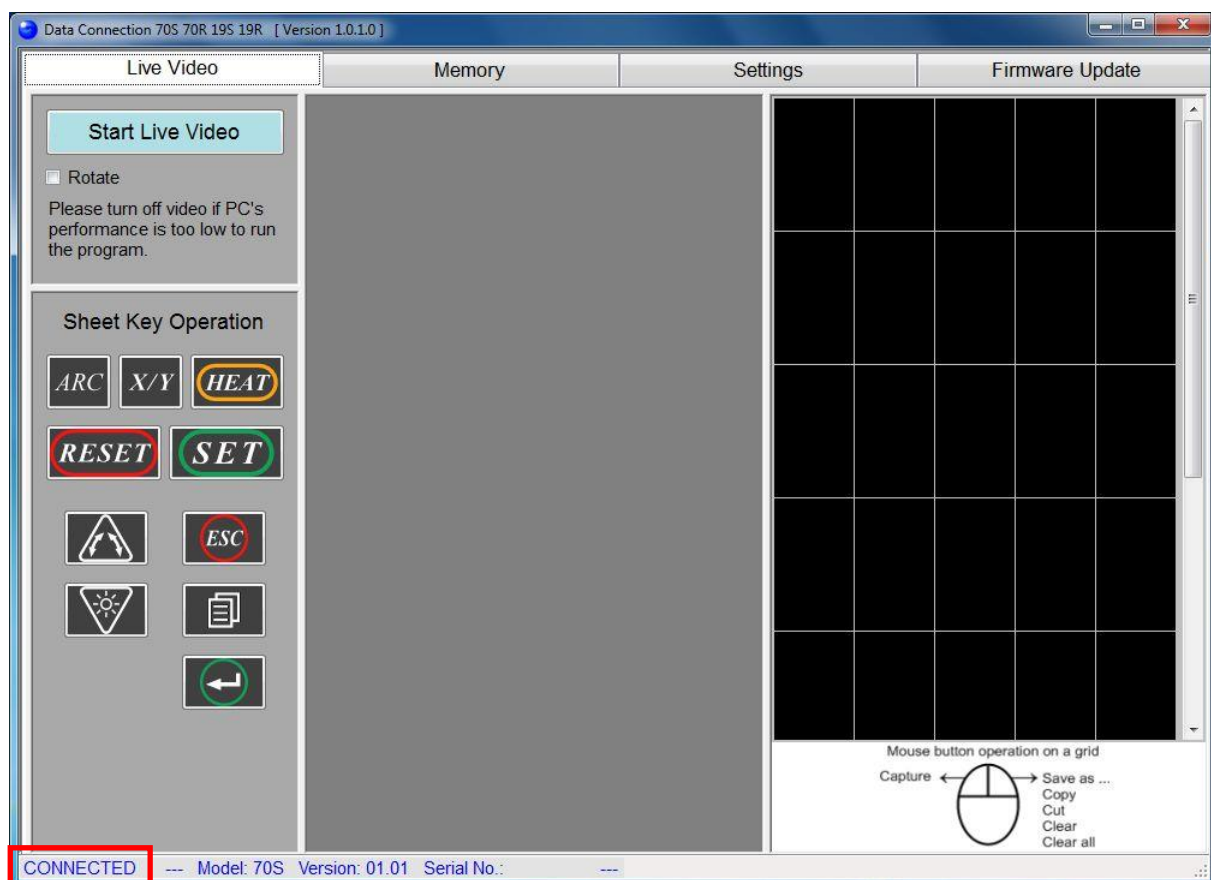
or



If the Data Connection does not run, please read [Data Connection Does Not Run] in [Chapter 7: Troubleshooting].

Turn on the splicer and connect to PC with USB cable.

If the USB communication is ready, “CONNECTED” message will be shown at the bottom left of Data Connection window.



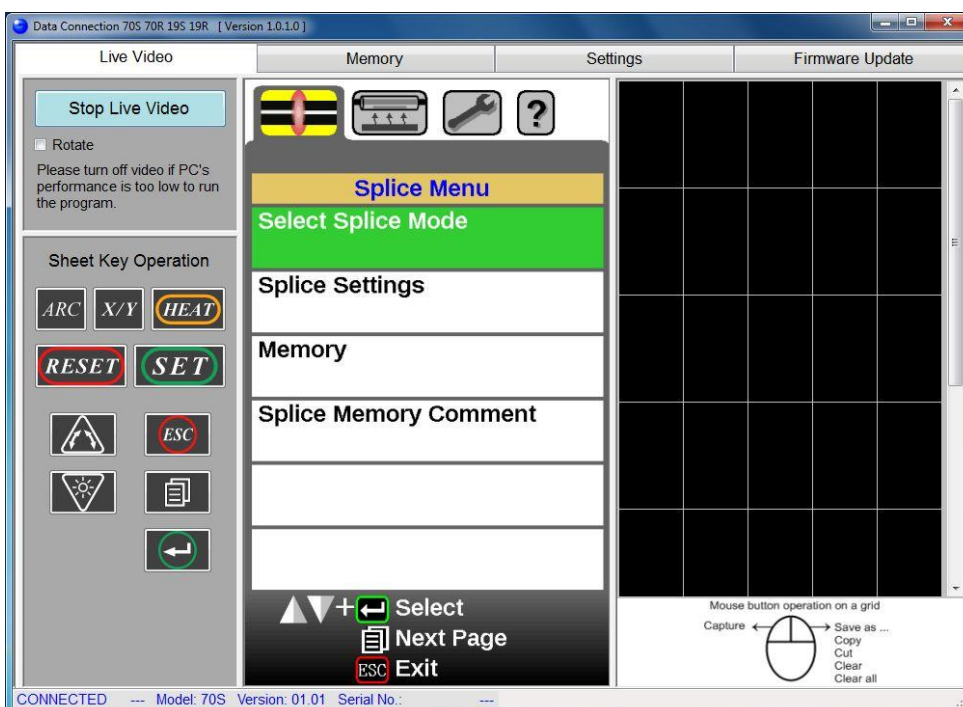
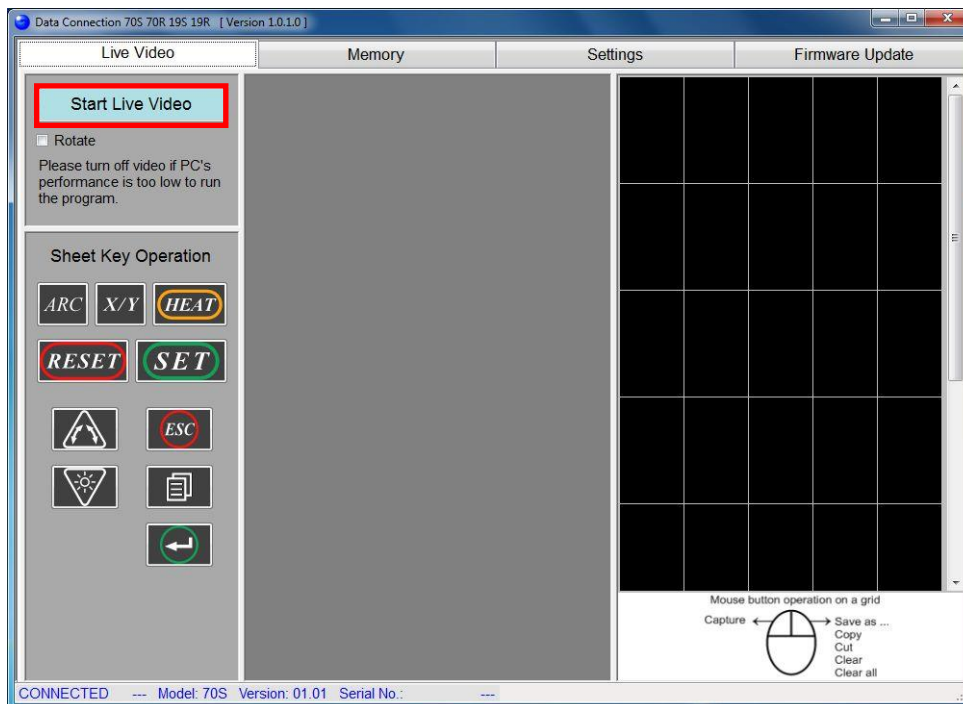
If the “CONNECTED” message was not shown, please read [USB Communication Does Not Works] in [Chapter 7: Troubleshooting]

5.1. Real-time Control

In the [Live Video] page, real-time video image can be displayed and captured. And sheet keys on the splicer can be operated by PC buttons.

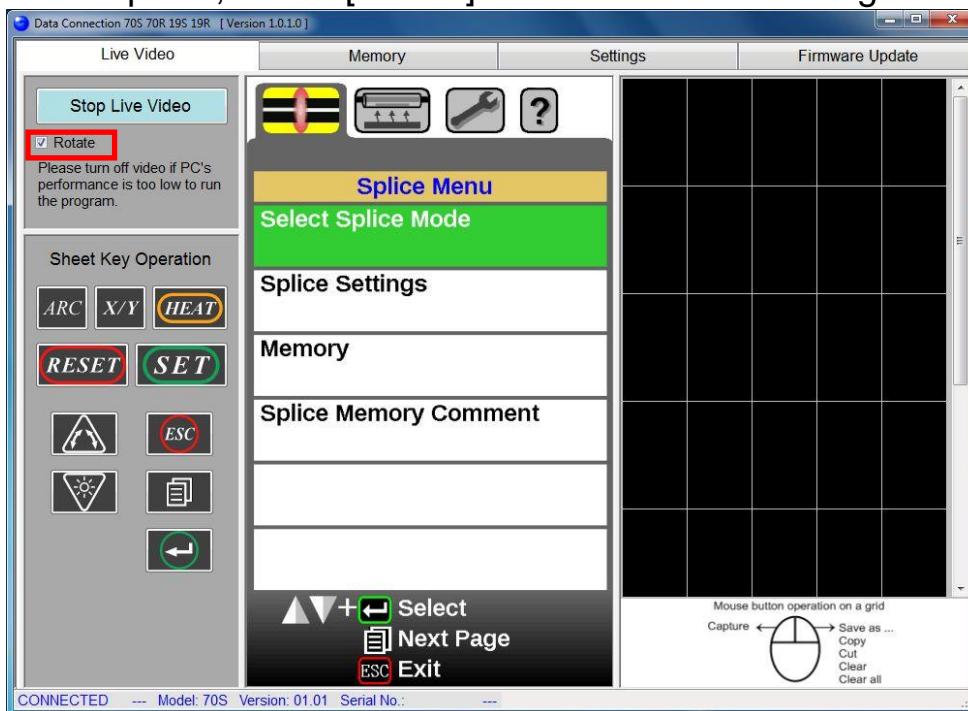
5.1.1. Display the Real-time Video

- (1) Select the [Live Video] page, and click the [Start Live Video] button to start video.
(Then the label of button will be changed to [Stop Live Video])

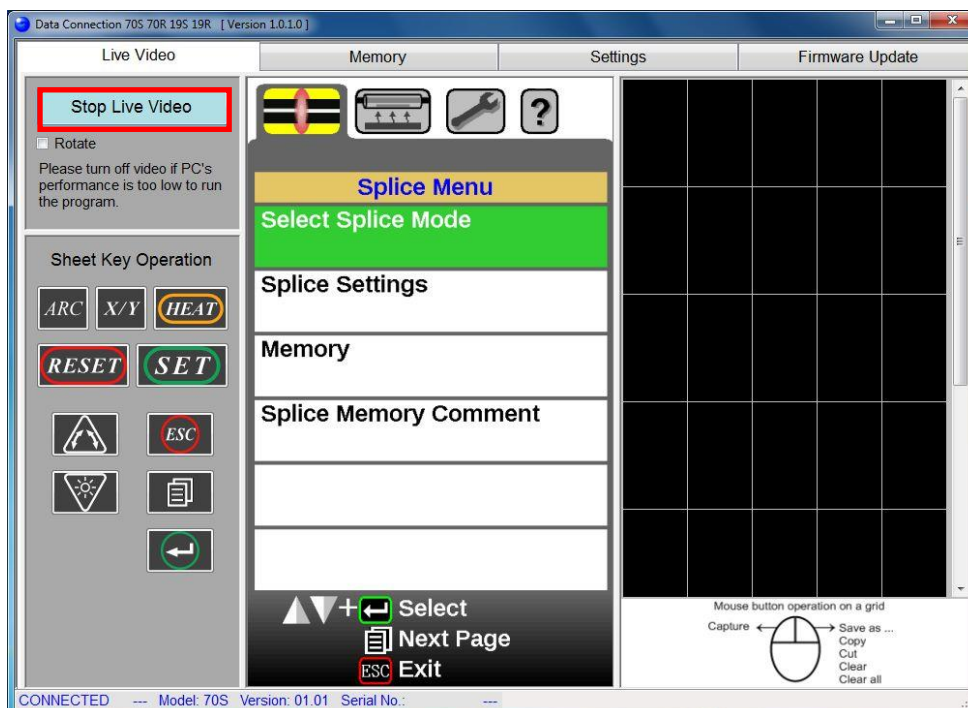


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- (2) If the video image is displayed upside down because of monitor position of the splicer, check [Rotate] to rotate the video image.

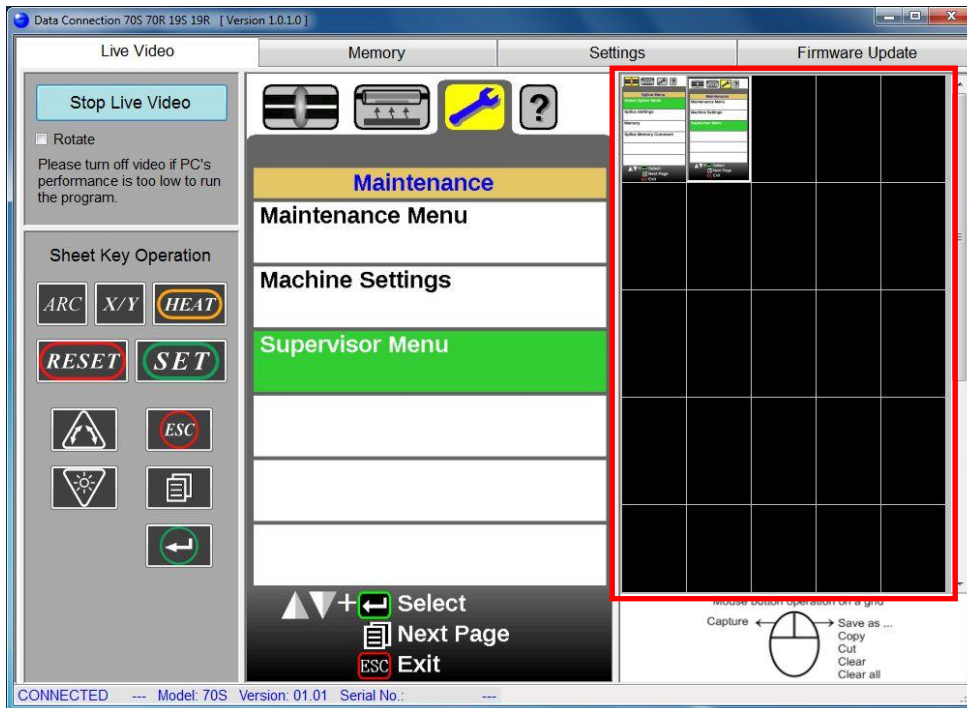


- (3) To stop live video, click the [Stop Live Video] button.
(Then the label of button will be changed to [Start Live Video])

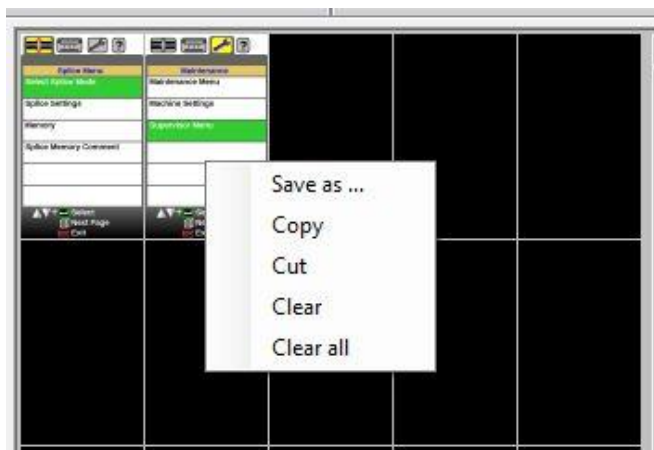


5.1.2. Capture the Live Video Image

- (1) Click the [Start Live Video] button to start live video.
- (2) Click the grid on right side of window. The live video image will be captured to clicked grid.



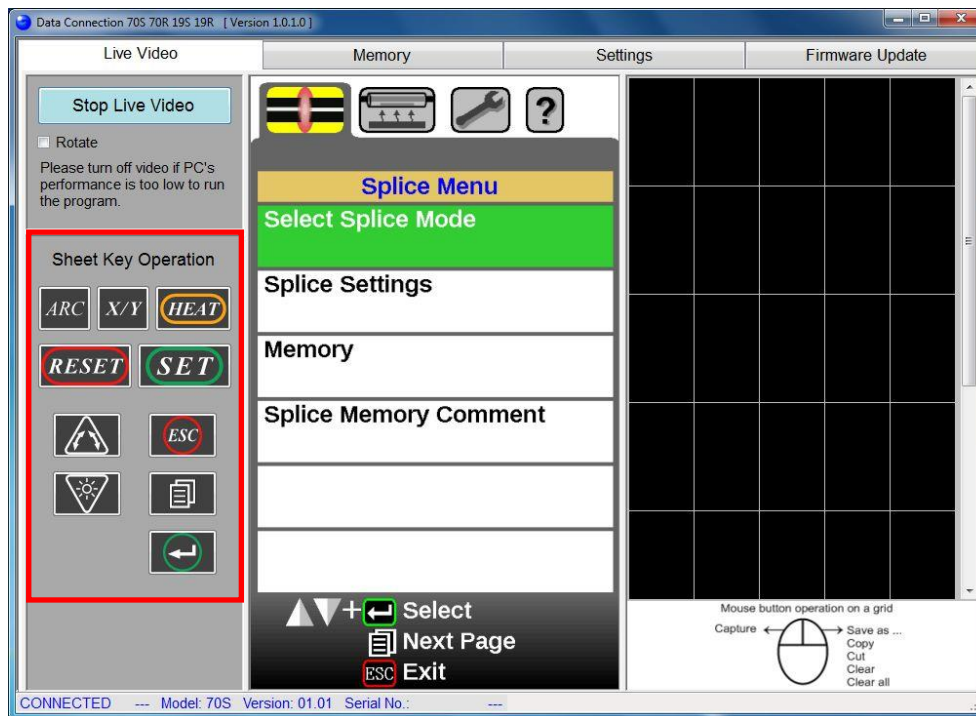
- (3) The functions shown at following table can be performed to the captured image. Right-click the captured image to show the menu, and select the operation.



Menu	Operation
Save As ...	Save the selected image as .jpg file.
Copy	Copy the selected images to clipboard.
Cut	Copy the selected images to clipboard and clear the image from DataConnection.
Clear	Clear the selected image from DataConnection.
Clear All	Clear all images from DataConnection.

5.1.3. Operate the Sheet Key

- (1) Select the [Live Video] page, and click the button which you want to operate in [Sheet Key Operation] panel.



5.2. Splice Result Memory

In the [Memory] page, the splice result memory and images may be downloaded and saved.



Splice result memory data can only be downloaded from the splicer. (Splice results cannot be uploaded to the splicer.)

5.2.1. Splice Results

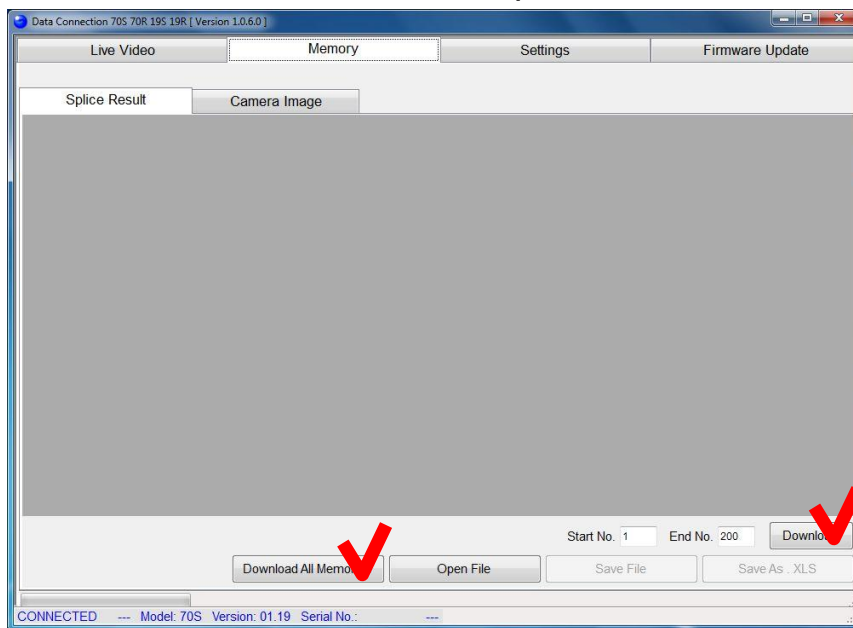
5.2.1.1 Download Splice Result Memory

- (1) Confirm that the splicer is in the “READY” state.



Press the [RESET] key to set the splicer to the “READY” state.

- (2) Select the [Memory] page, and click the [Download All Memories] button to download all stored splice results.



NOTES

To download **ALL** splice result memories:

Click the [Download All Memories] button

To download **ONLY** a specified selection of splice result memories:

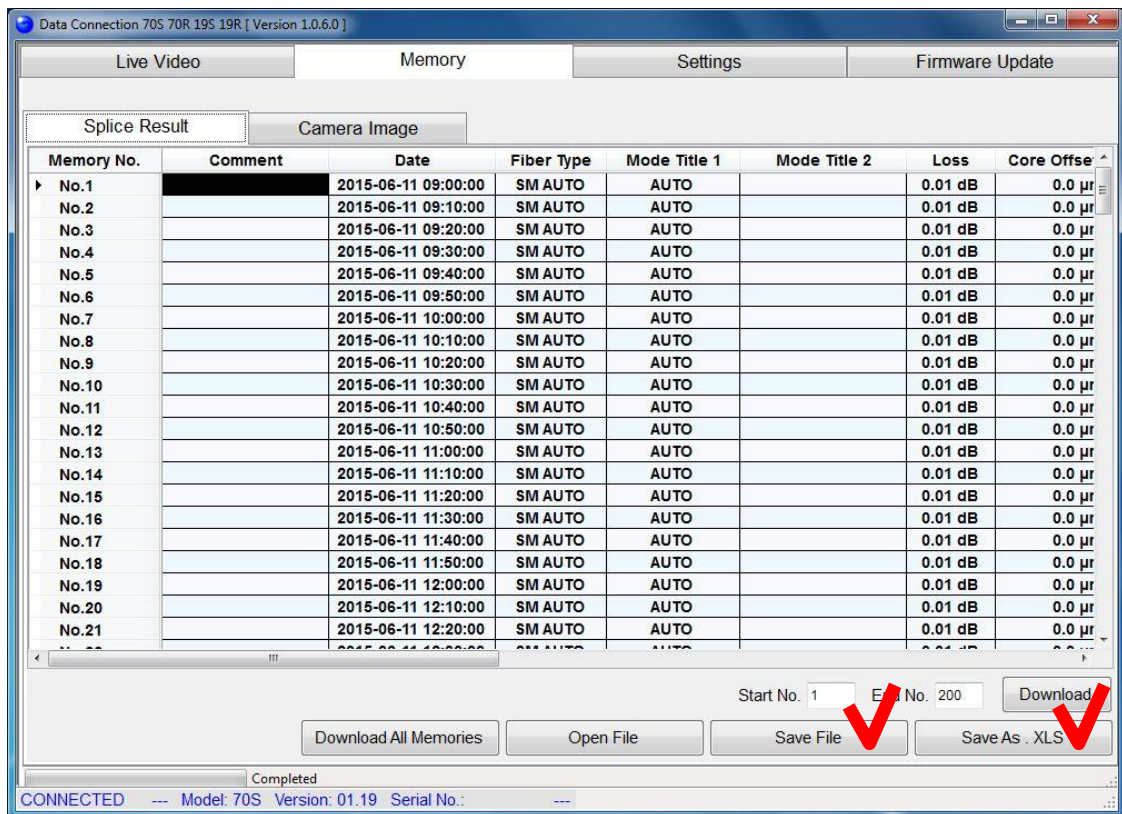
Input the desired [Start No.] and [End No.], then click the [Download] button.

(In the picture above, results from No.1 to No.200 will be downloaded.)

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5.2.1.2 Save Splice Result Memory

- (1) Click [Save File] or [Save As .XLS] button to save the splice result memories.



[Save File]

Data is saved to a file. Only Data Connection can open this data file.

[Save As .XLS]

Data is exported as XLS file so that the data can be opened by Microsoft Excel. Note that Data Connection cannot open this exported file.

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5.2.1.3 Open Splice Result Memory Data

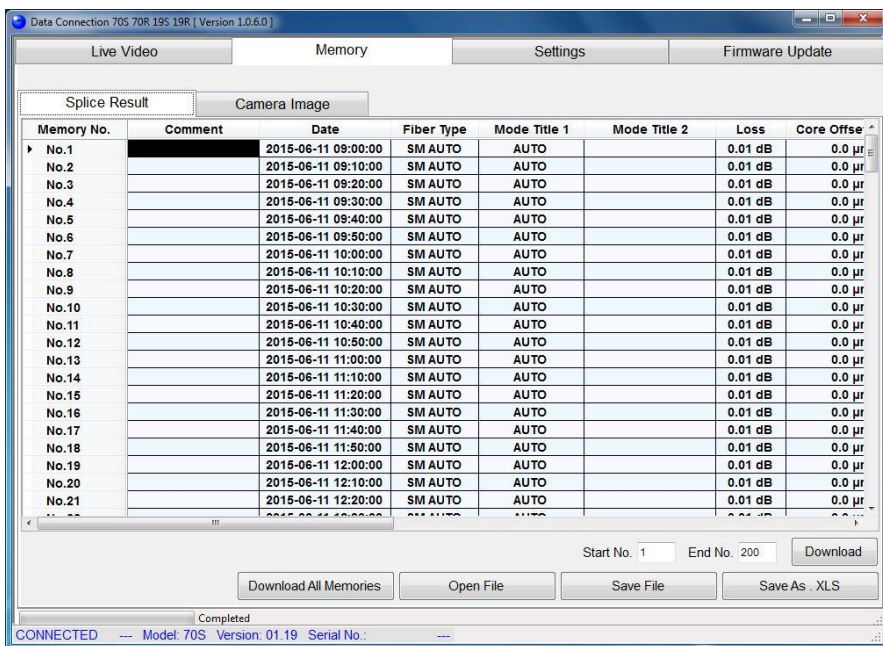
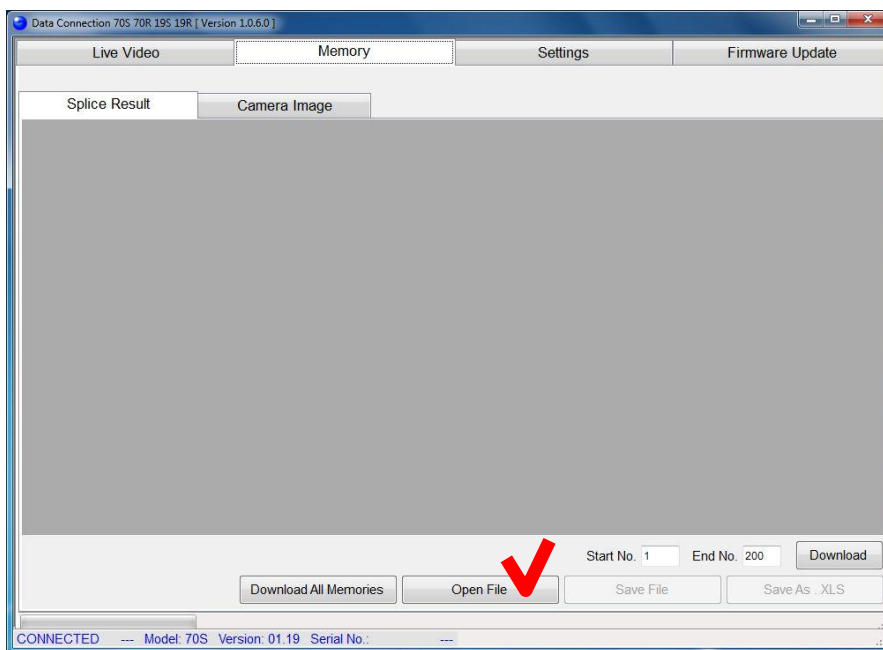


This function is available without USB connection.



Splice result memory data cannot be opened when a different model of splicer is connected.

Select the [Memory] page, and click the [Open File] button. When the file open dialog is shown, select the saved file.



5.2.2. Camera Images

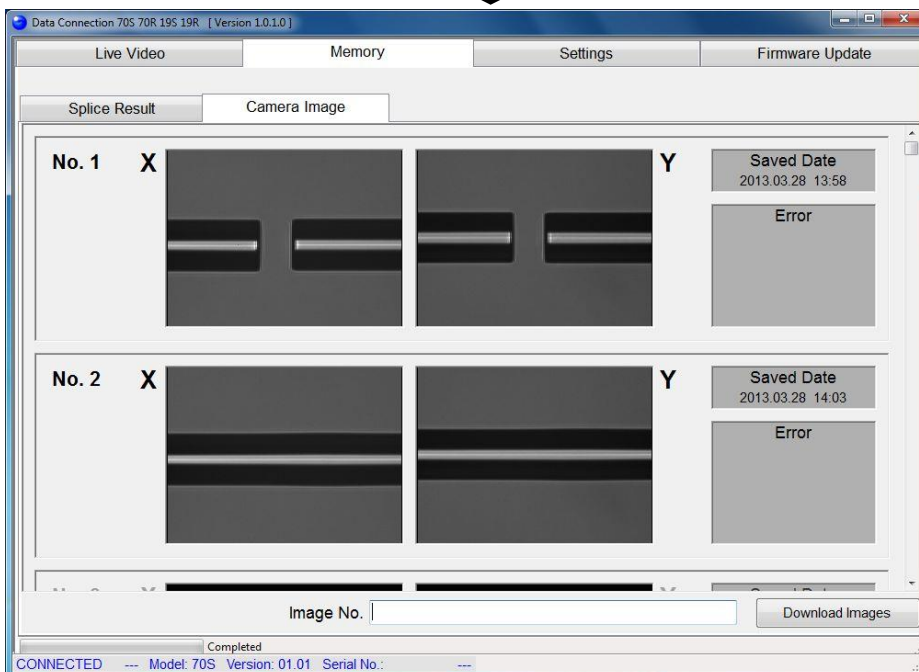
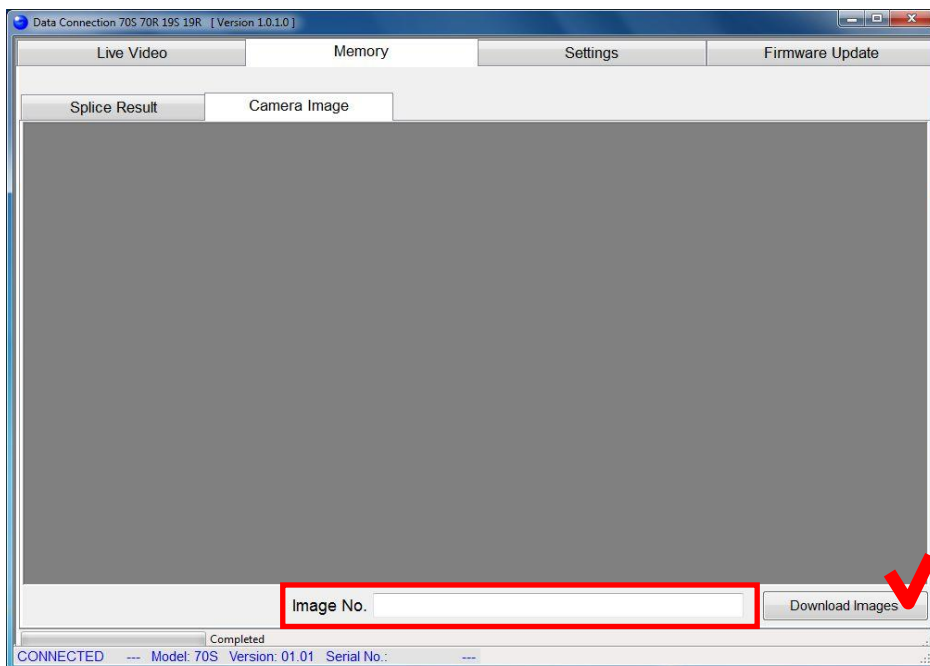
5.2.2.1 Download Camera Images

- (1) Confirm that the splicer is in "READY" state.



Press the [RESET] key to set the splicer to the "READY" state.

- (2) Select the [Camera Image] tab in the [Memory] page, and click the [Download Images] button. Input such as "1-10", "1,3,5" into [Image No.] textbox to download specified images. To download all images, input nothing here.



5.2.2.2 Save Images

(1) Right-click the image to show the menu and select the operation.



[Save As ...]

Save the selected image as .jpg file.

[Copy]

Copy the selected image to clipboard.

5.3. Download, Save, Edit and Upload Settings


In the [Settings] page, the splice settings can be downloaded, saved, edited and uploaded. The [Setting] page consists of 3 additional pages.

Please note that some items are displayed on the page which is different from splicer.

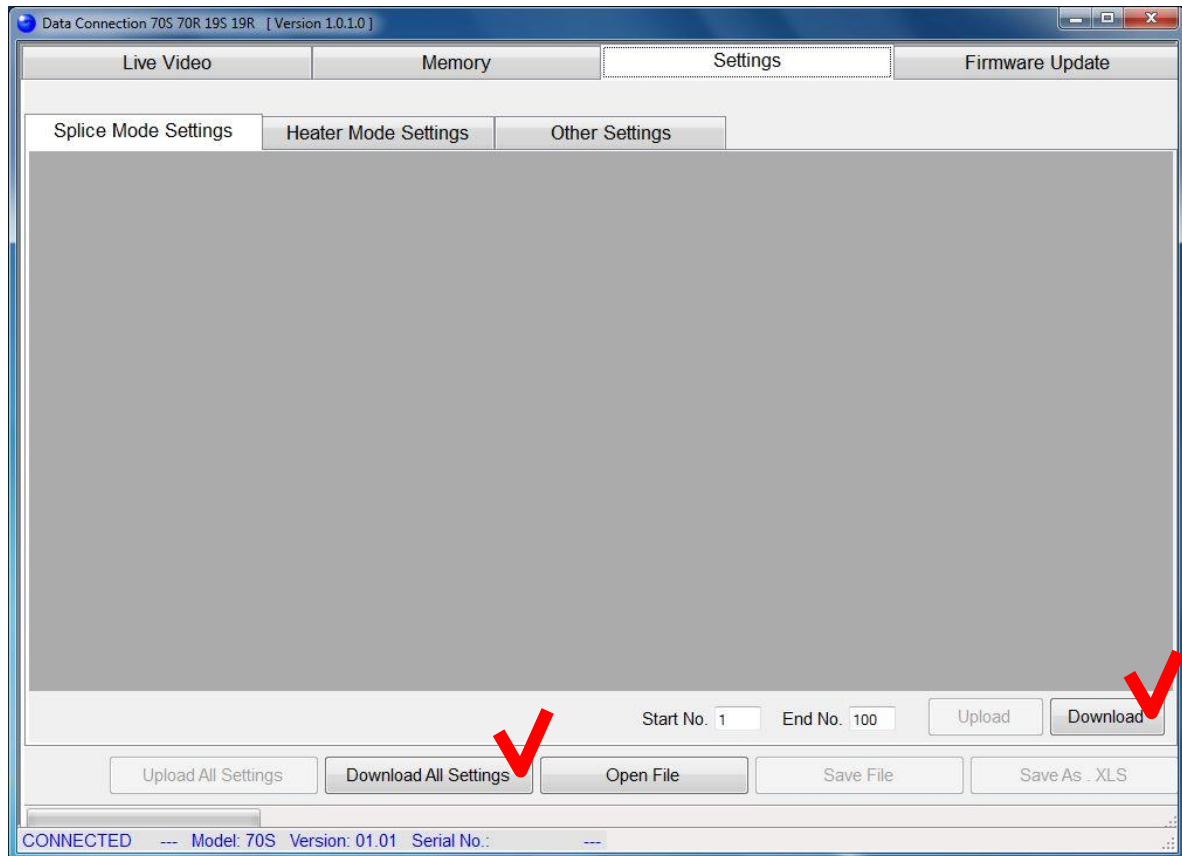
Item	Page in Splicer	Page in Data Connection
Splice Mode	Splice Menu	Splice Mode Settings
Heater Mode	Heater Menu	Heater Mode Settings
Splice Settings	Splice Menu	Other Settings
Splice Memory Comment		
Auto Cover Open	Heater Menu	
Machine Settings	Maintenance	
Supervisor Menu		

5.3.1. Download Settings

Confirm that the splicer is in “READY” state.

 Press the [RESET] key to set the splicer to the “READY” state.

Select the [Settings] page.




Download all of [Splice Mode Settings], [Heater Mode Settings] and [Other Settings]

Click the [Download All Settings] button

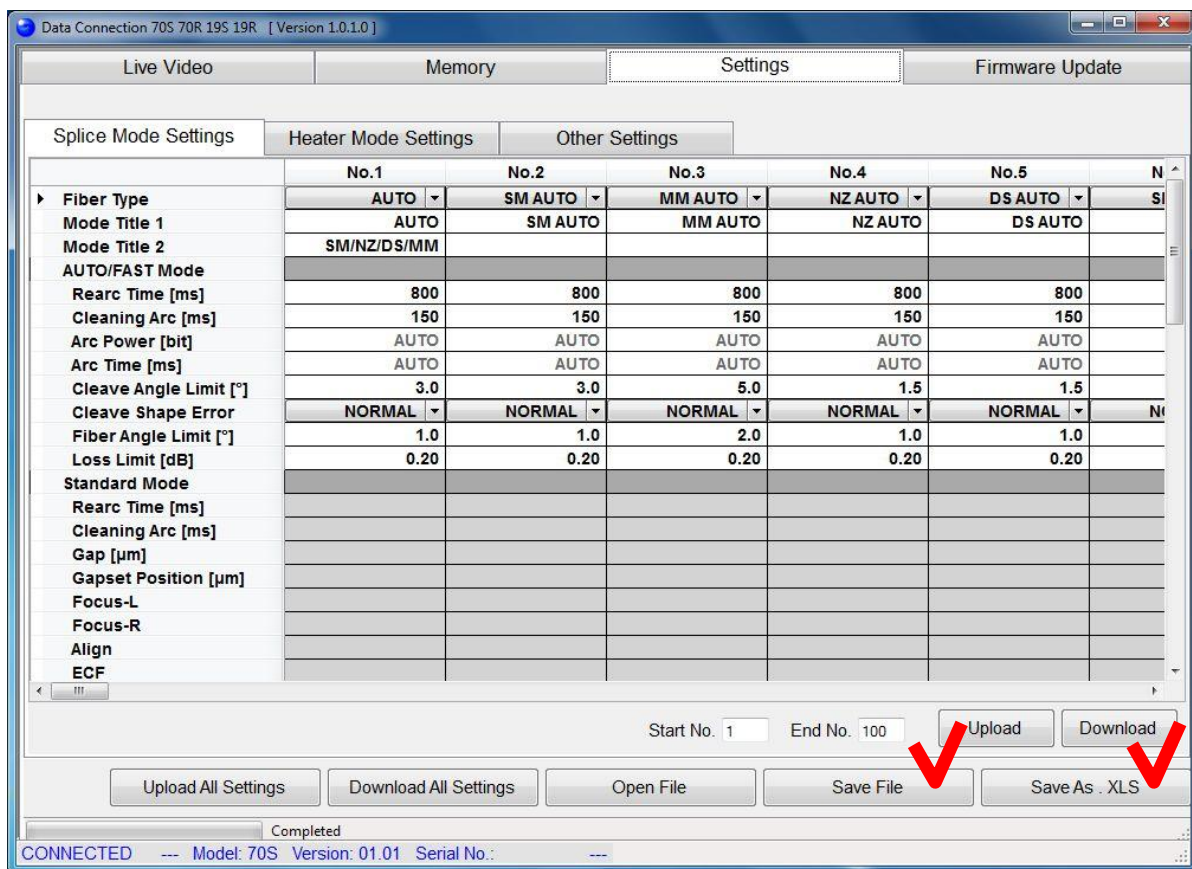
Download one of [Splice Mode Settings], [Heater Mode Settings] and [Other Settings]

Select page you want to download, and click the [Download] button.
(In the picture above, [Splice Mode Settings] will be downloaded.)

 In [Splice Mode Settings] and [Heater Mode Settings] page, you can select the mode number to download specifying [Start No.] and [End No.].

5.3.2. Save Settings

Click [Save File] or [Save As .XLS] button to save the settings. When file save dialog is shown, input file name and destination.



[Save File]

Data is saved to a file. Only Data Connection can open this data file.

[Save As .XLS]

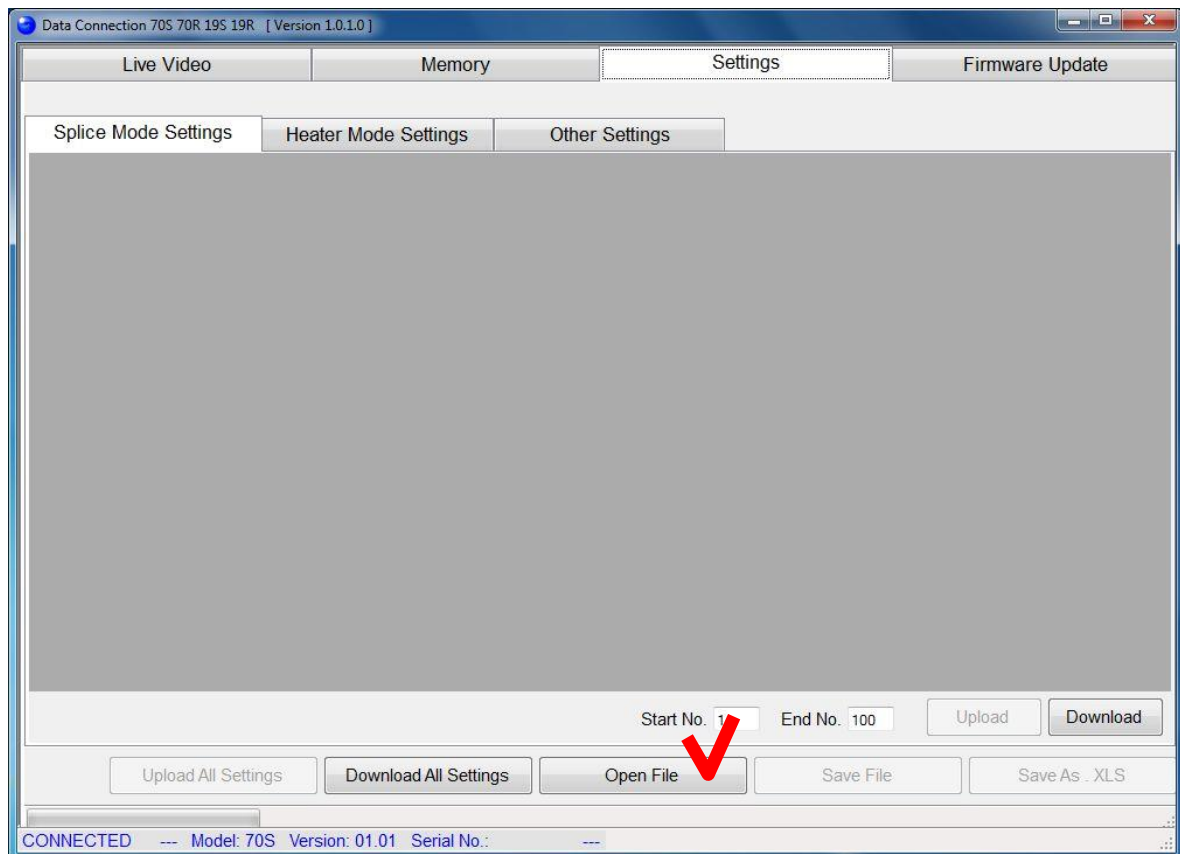
Data is exported as XLS file so that the data can be opened by Microsoft Excel. Note that Data Connection cannot open this exported file.

5.3.3. Open Settings Data



This function is available without USB connection.

Select the [Settings] page and click the [Open File] button.
When file open dialog is shown, select the saved file.



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5.3.4. Edit Settings

Click the cell to edit.

There are specific methods to change the setting. Follow the Data Connection display to change the setting.



When the value of "Fiber Type" is changed, all parameters in the selected mode will be reset to original factory values.



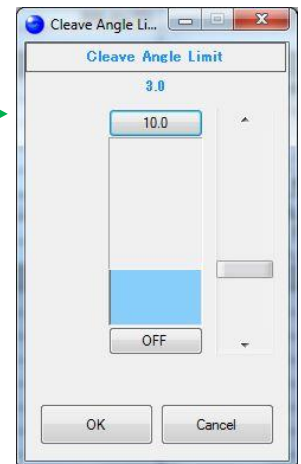
When the value of "Sleeve Type" is changed, all parameters in the selected mode will be reset to original factory values.

(a) Select item from list.

Cleaning Arc [ms]	150	150
Arc Power [bit]	AUTO	AUTO
Arc Time [ms]	AUTO	AUTO
Cleave Angle Limit [°]	3.0	3.0
Cleave Shape Error	NORMAL	NORMAL
Fiber Angle Limit [°]	OFF	1.0
Loss Limit [dB]	ROUGH	0.20
Standard Mode	NORMAL	
Rearc Time [ms]	FINE	
Cleaning Arc [ms]		

(b) Change value with bar.

Cleaning Arc [ms]	150	150
Arc Power [bit]	AUTO	AUTO
Arc Time [ms]	AUTO	AUTO
Cleave Angle Limit [°]	3.0	
Cleave Shape Error	NORMAL	NORMAL
Fiber Angle Limit [°]	1.0	1.0
Loss Limit [dB]	0.20	0.20
Standard Mode		
Rearc Time [ms]		
Cleaning Arc [ms]		




(c) Input with keyboard directly.

	No.1	No.2
Fiber Type	AUTO	SM AUTO
Mode Title 1	AUTO	SM AUTO
Mode Title 2	SM/NZ/DS/MM	
AUTO/FAST Mode		
Rearc Time [ms]	800	800
Cleaning Arc [ms]	150	150
Arc Power [bit]	AUTO	AUTO

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5.3.5. Upload Settings

Confirm that the splicer is in “READY” state.

 Press the [RESET] key to set the splicer to the “READY” state.

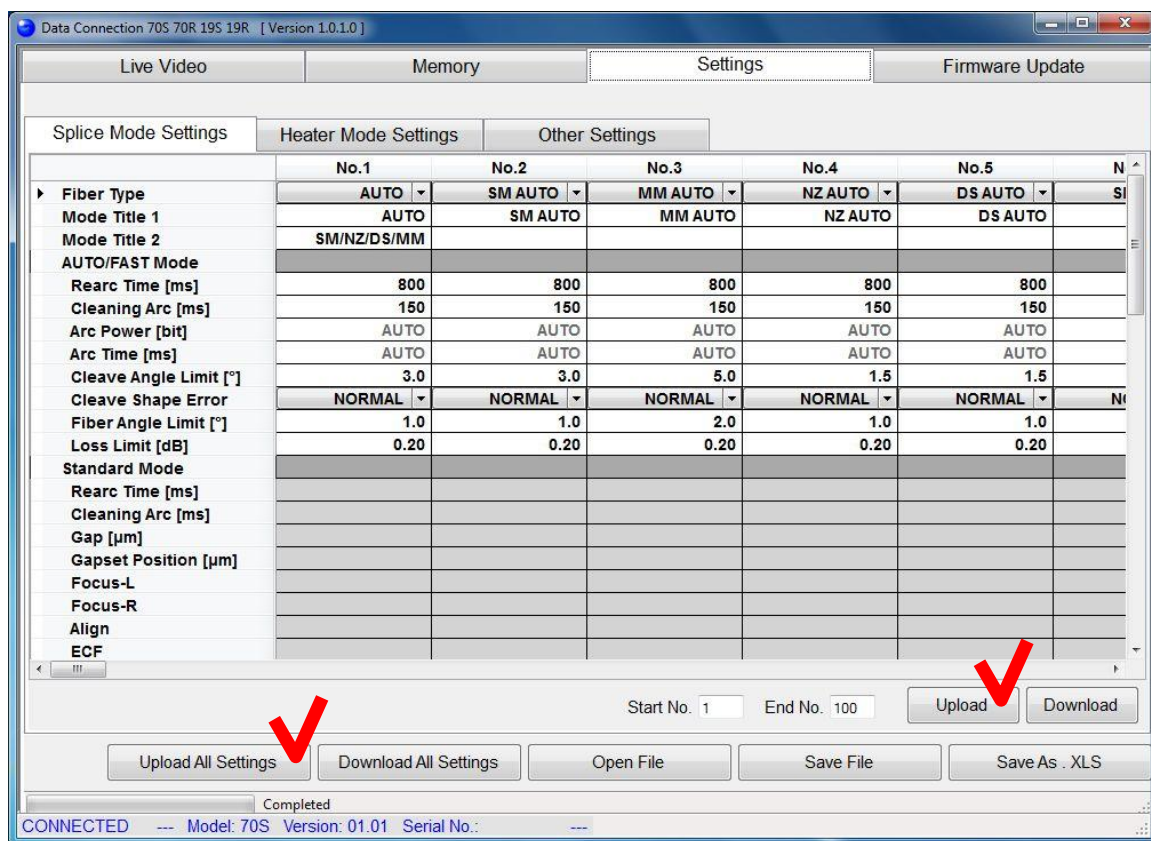
Upload all of [Splice Mode Settings], [Heater Mode Settings] and [Other Settings]


Click the [Upload All Settings] button

Upload one of [Splice Mode Settings], [Heater Mode Settings] and [Other Settings]

Select the page you want to upload, and click the [Upload] button.

(In the following picture, only [Splice Mode Settings] will be uploaded.)



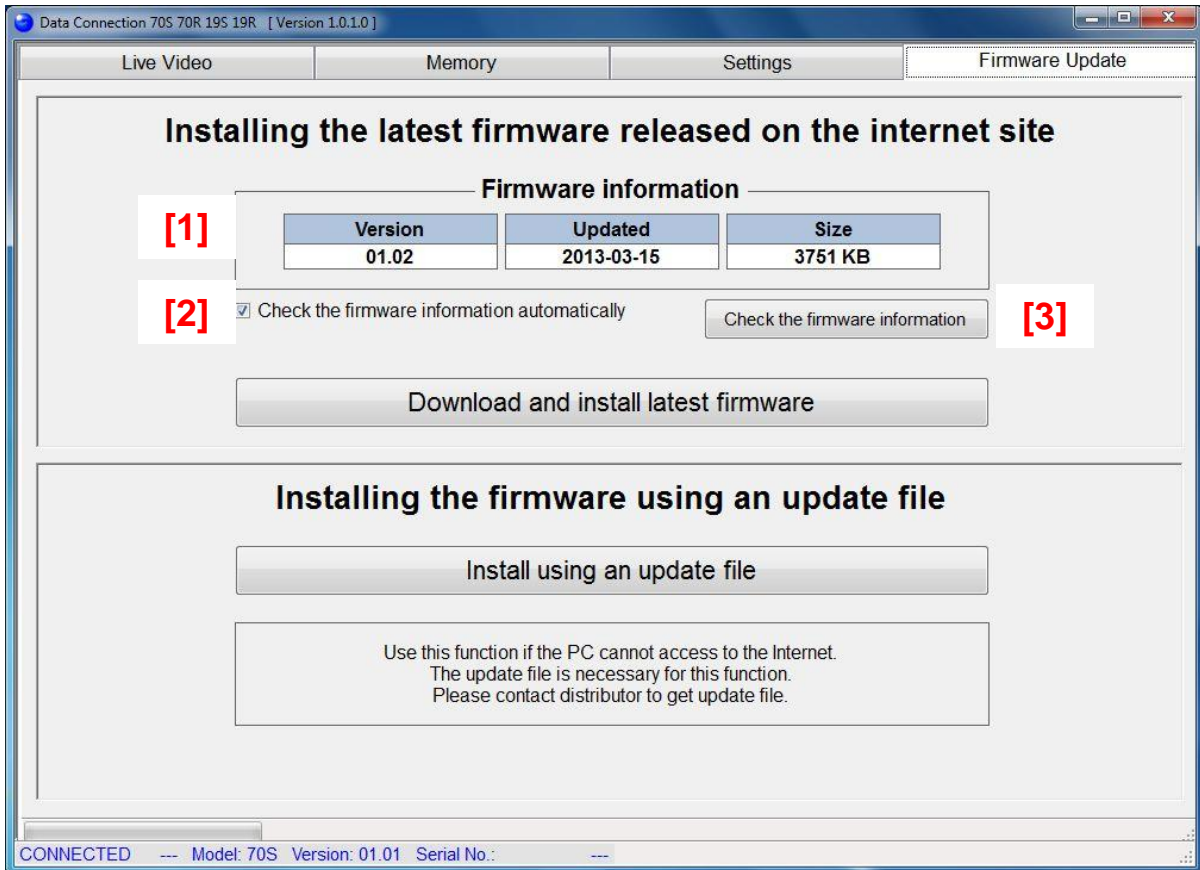
 In [Splice Mode Settings] or [Heater Mode Settings] page, you can select the mode number to upload specifying the [Start No.] and [End No.]

5.4. Firmware Update

The [Firmware Update] page provides firmware update function of the splicer.

When the PC is connected to internet, DataConnection downloads firmware update file from our server and installs it to the splicer.

Otherwise, if you have the firmware update file, the firmware can be installed to splicer using Data Connection without internet connection.



[1] Information of latest firmware

[2] Checkbox to enable check of the firmware information at logon. When the information is updated, message will be shown.

[3] Button to check the firmware information.

5.4.1. Install the Latest Firmware Released on the Internet



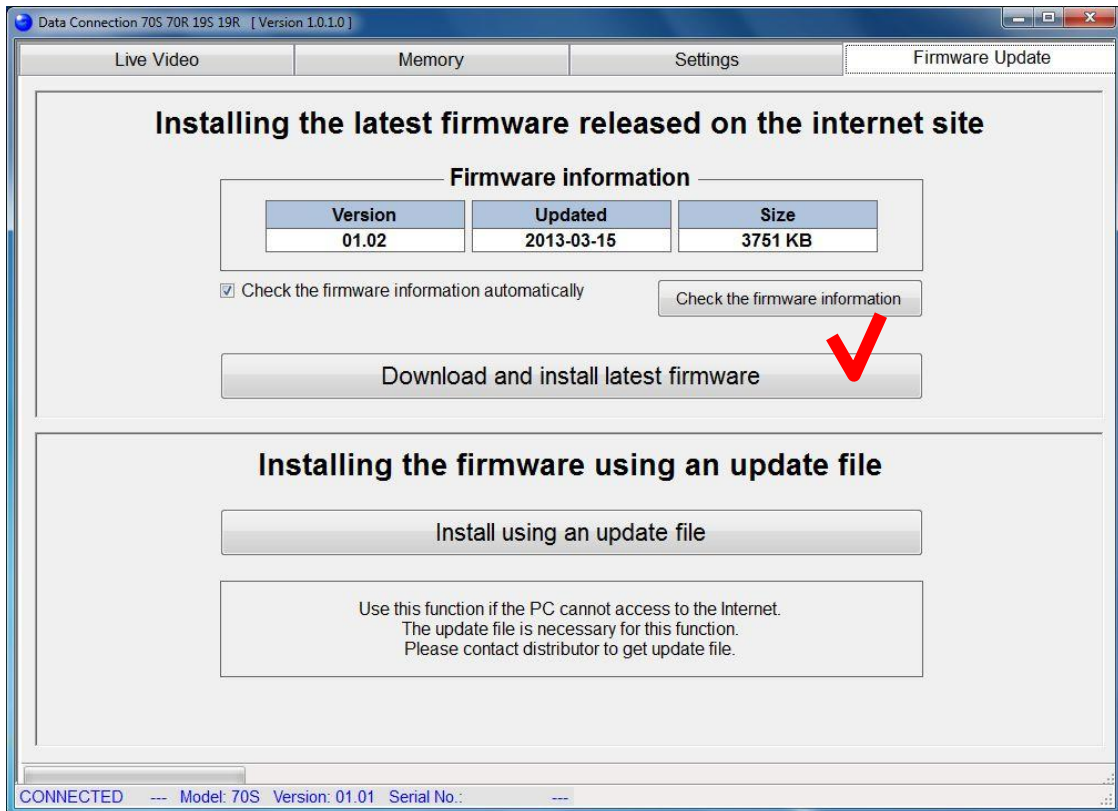
During firmware installation,

- Do not turn off the splicer.
- Do not disconnect USB cable.

(1) Confirm the following

- The splicer is connected to PC with USB cable.
- The splicer is in “READY” state.
- The PC is connected to Internet.

(2) Select the [Firmware Update] page, and click the [Download and install latest firmware] button.

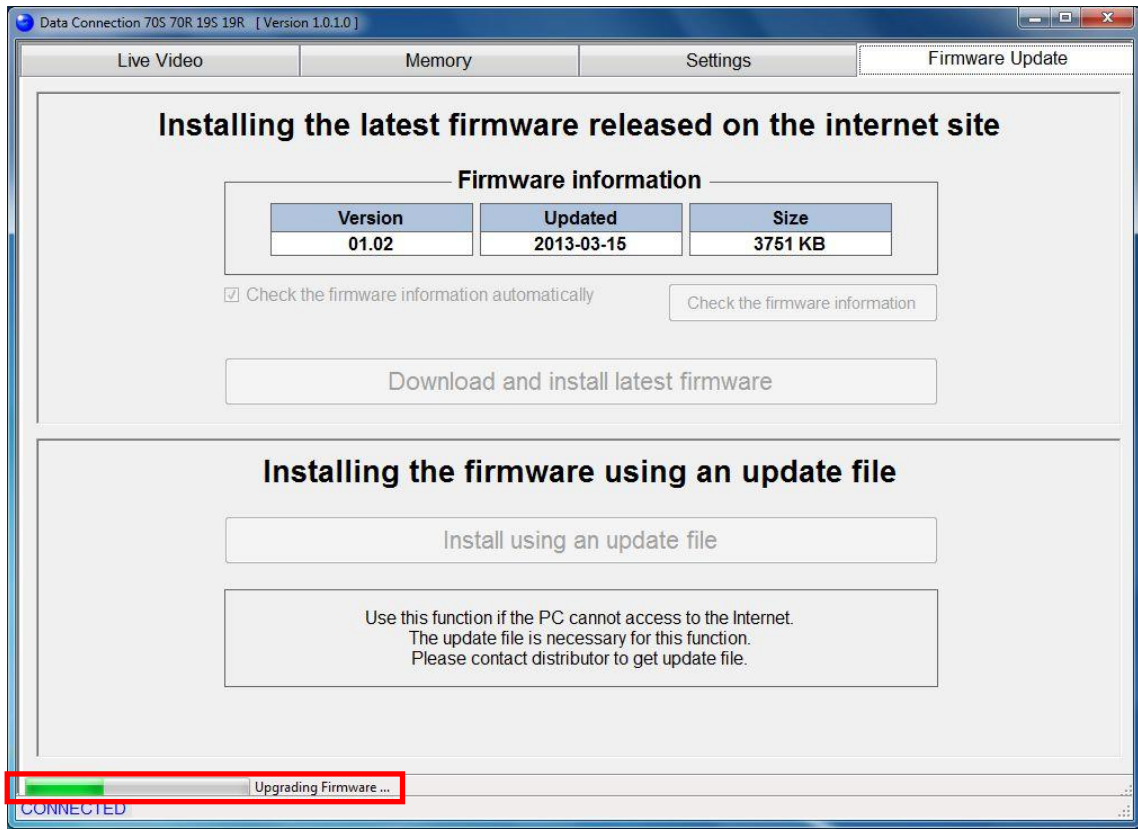


If the update file cannot be downloaded, “Connect the PC to the internet” message will be shown. In this case, confirm the internet connection using web browser.

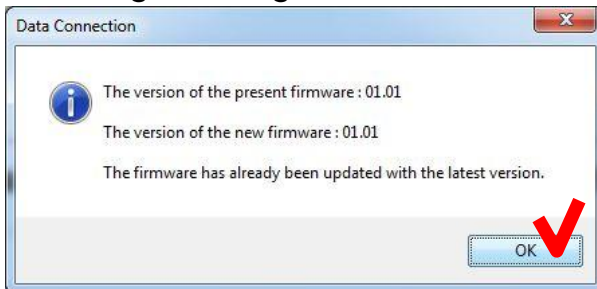
If the message is shown despite the PC can access the internet, the firewall of network system may block downloading the file. Please consult the administrator of your network system.

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- (3) Firmware update will start, and status bar at bottom left of Data Connection will progress.

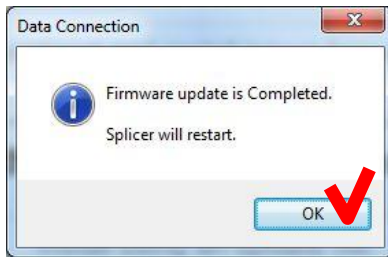


If the latest firmware has already been installed to the splicer, the following message will be shown and firmware will not be updated.



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- (4) When the following message is shown, click the [OK] button to finish the update. Confirm that the splicer restarts and “READY” state is indicated on screen.



If the firmware update failed, the following problem will occur

- The splicer cannot be turned on.
(The splicer does not restart after firmware update)
- “READY” state is not indicated on screen although the splicer is turned on.



When above problem occurs, please read [Installation of Firmware Failed] in [Chapter 7: Troubleshooting]

5.4.2. Install the Firmware Using an Update File



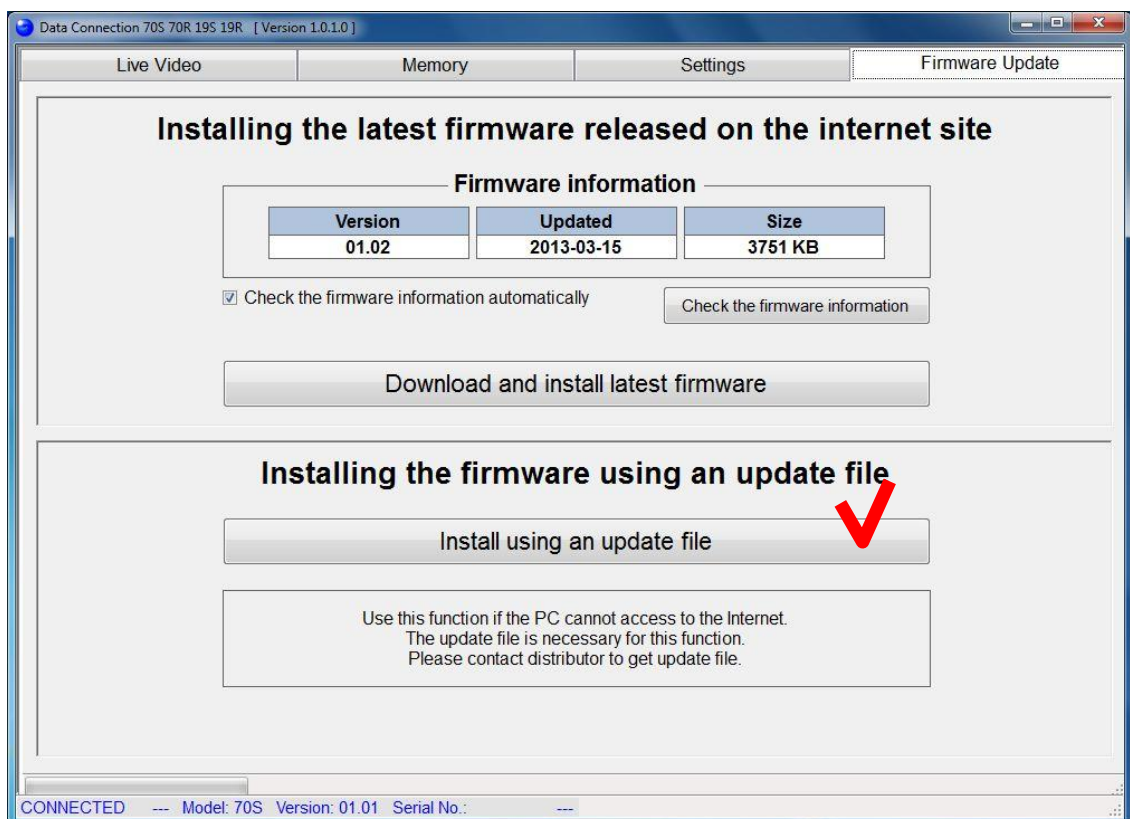
During firmware installation,

- Do not turn off the splicer.
- Do not disconnect USB cable.

(1) Confirm the following

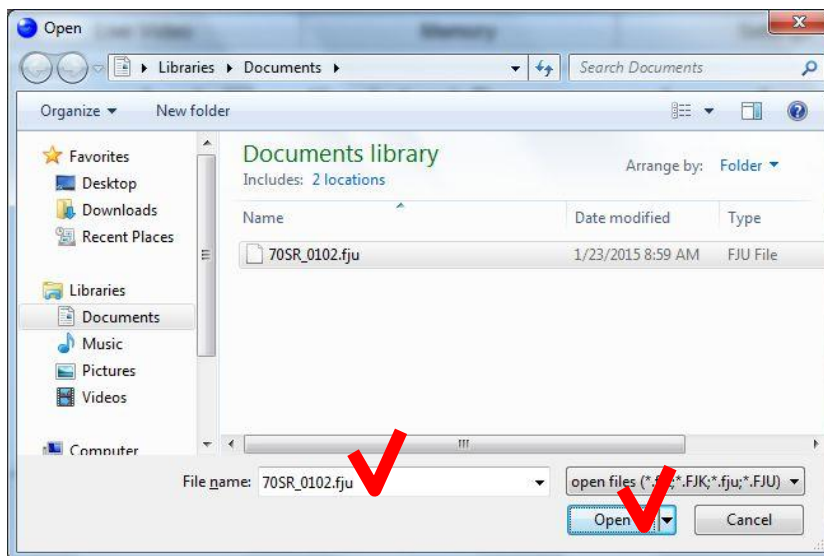
- The splicer is connected to PC with USB cable.
- The splicer is in “READY” state.

(2) Select the [Firmware Update] page, and click the [Install using an update file] button.

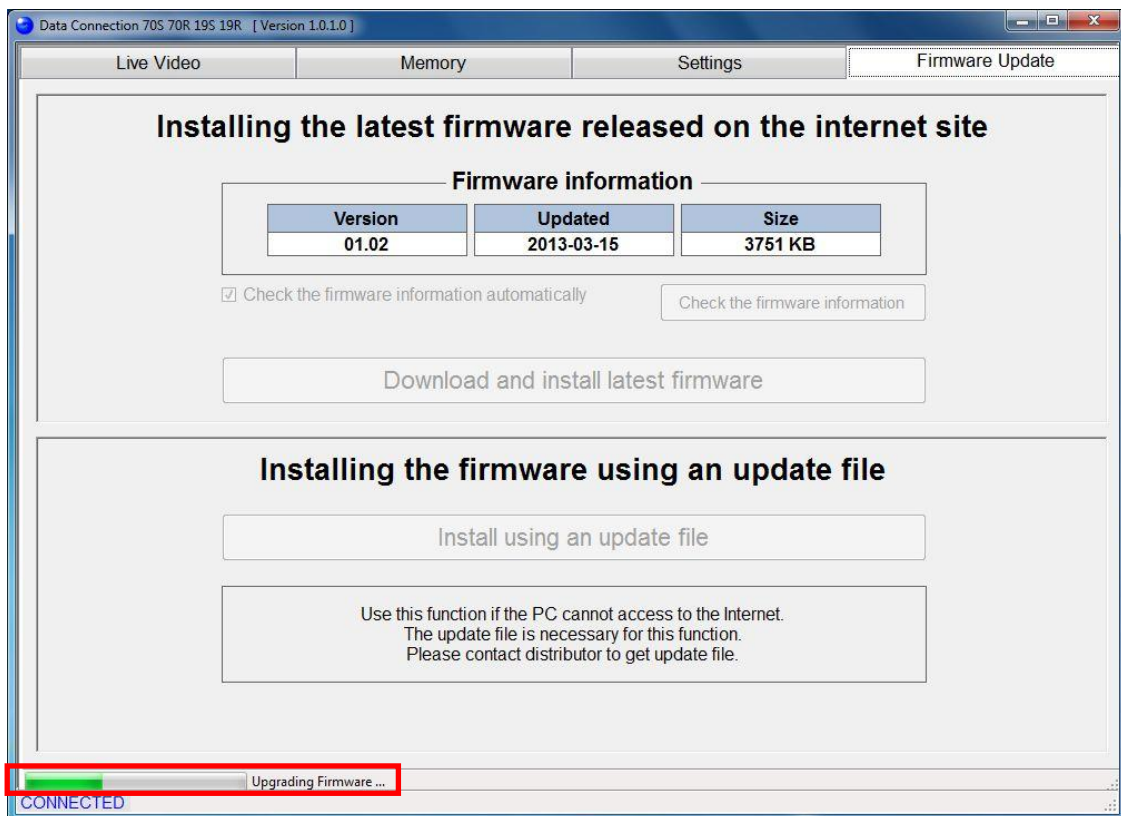


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(3) When file open dialog is shown, select the update file.



(4) Firmware update will start, and status bar will progress.

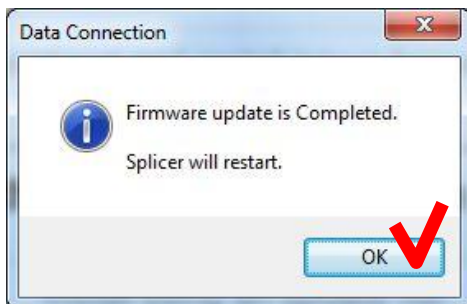


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If the latest firmware has already been installed to the splicer, the following message will be shown and firmware will not be updated.



- (5) When the following message is shown, click the [OK] button to finish the update. Confirm that the splicer restarts and “READY” state is indicated on screen.



If the firmware update failed, the following problem will occur

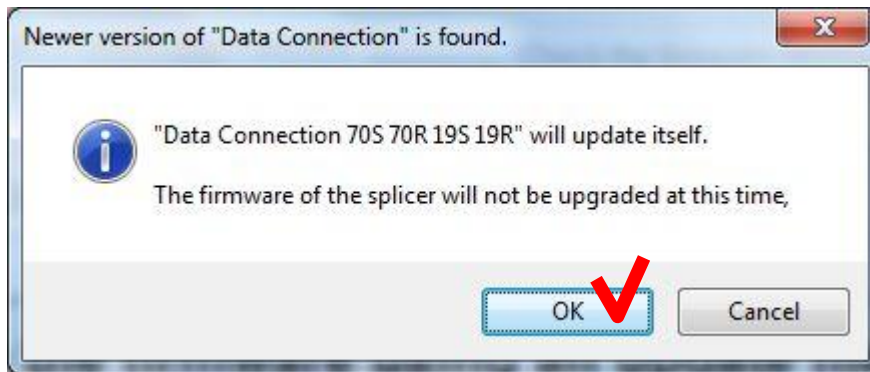
- The splicer cannot be turned on.
(The splicer does not restart after firmware update)
- “READY” state is not indicated on screen although the splicer is turned on.



When above problem occurs, please read [Installation of Firmware Failed] in [Chapter 7: Troubleshooting]

5.5. Update Data Connection

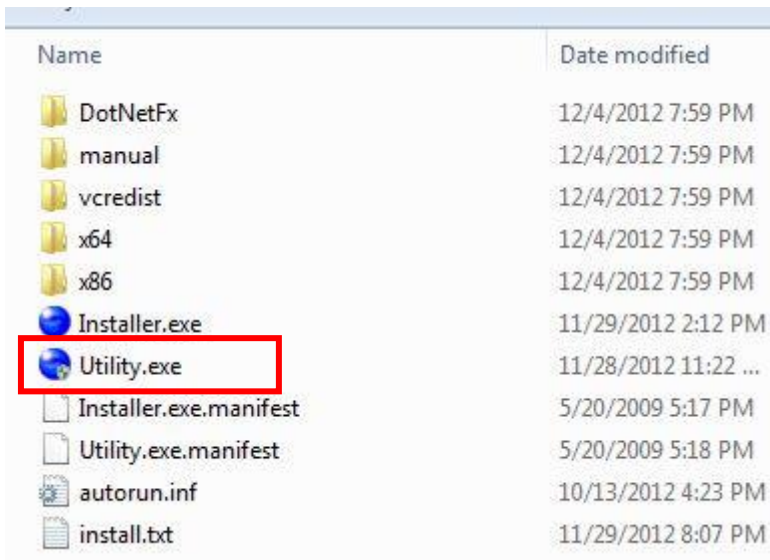
Data Connection has self-update feature. If the following message is shown when Data Connection is starting, click the [OK] button to start updating Data Connection.



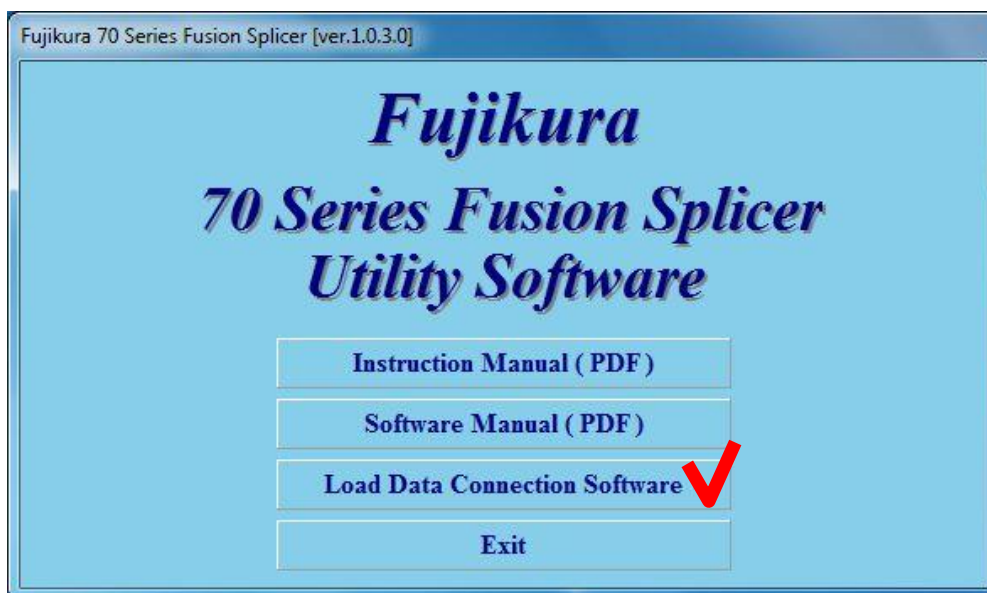
Internet connection is necessary for self-update.

6. Uninstall the Data Connection

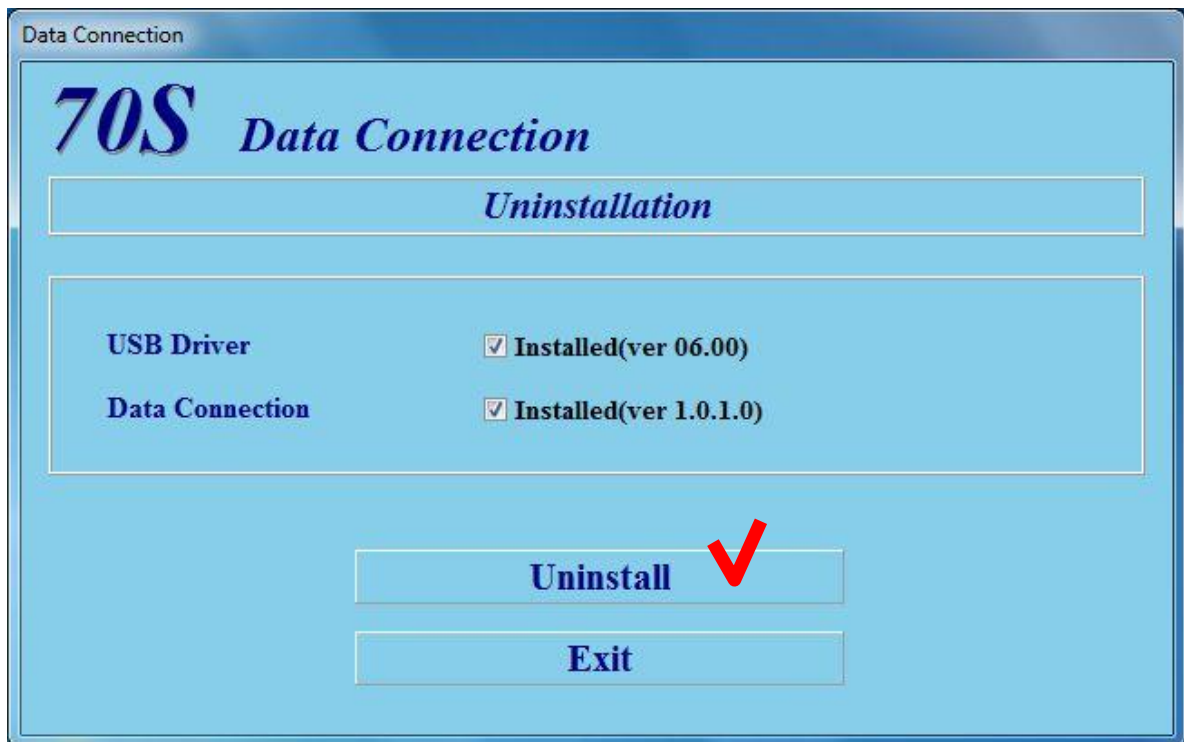
- (1) Confirm that the USB cable is **not connected**.
- (2) Insert the instruction CD into CD-ROM or DVD drive.
- (3) After a few seconds, instruction menu will be shown.
If the menu is not shown, double-click "Utility.exe" which is in the root of the instruction CD.



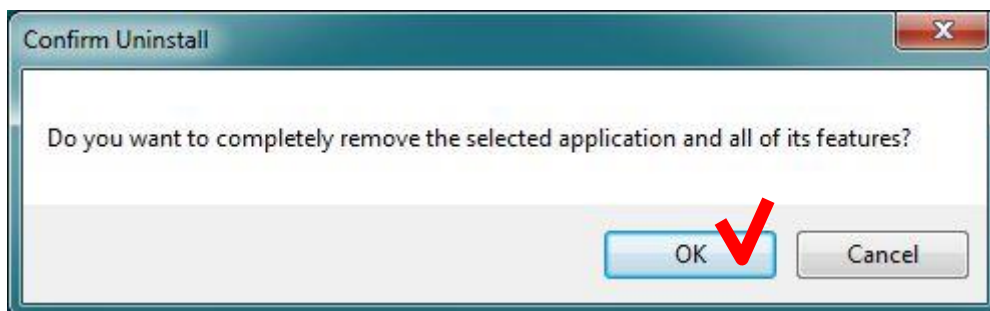
- (4) Click the [Load Data Connection Software] button.



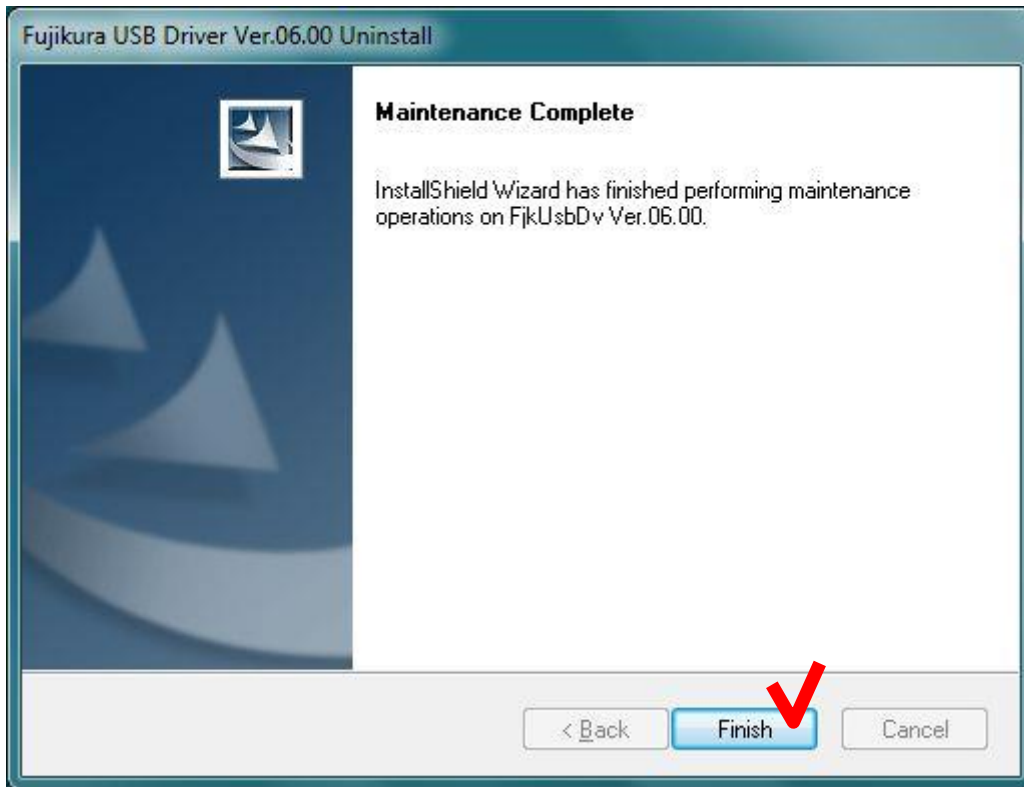
(5) When the following window is shown, click the [Uninstall] button.



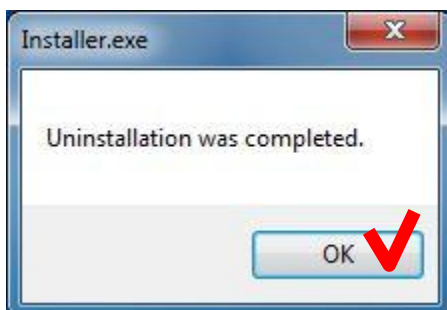
(6) When the [Confirm Uninstall] message is shown, click the [OK] button to continue.



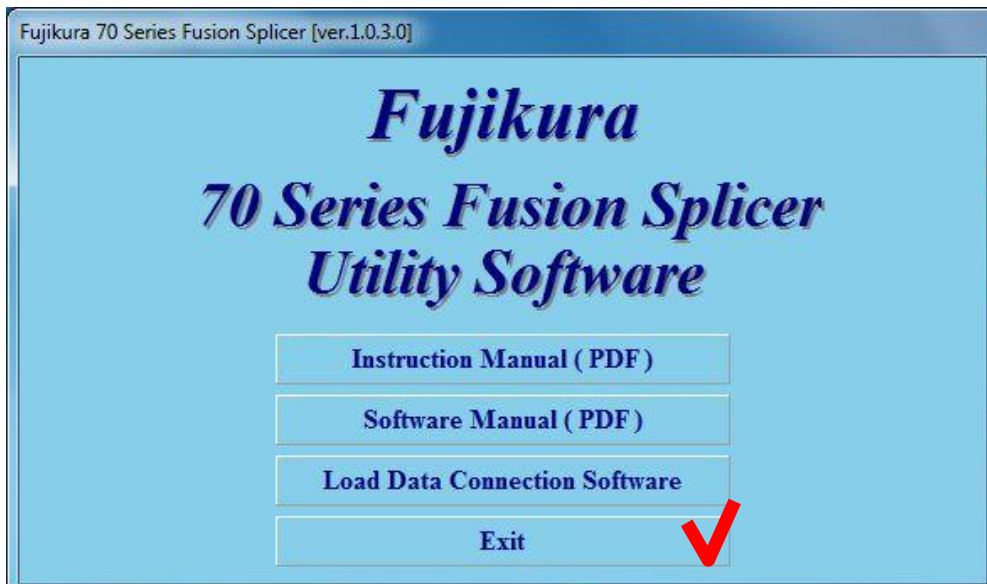
(7) When [Maintenance Complete] window is shown, click the [Finish] button.



(8) When the following message is shown, click the [OK] button to complete installation.



(9) Click the [Exit] button to close menu.



7. Troubleshooting

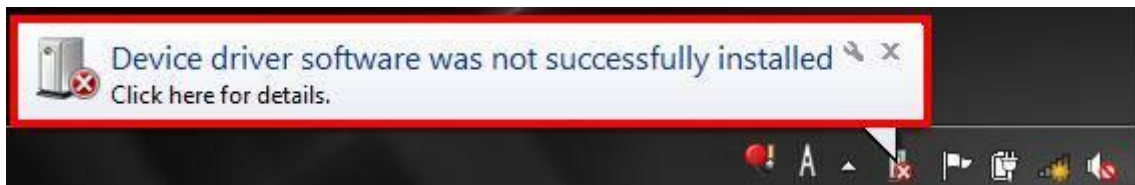
When trouble occurs during installation or when using Data Connection, please read this chapter.



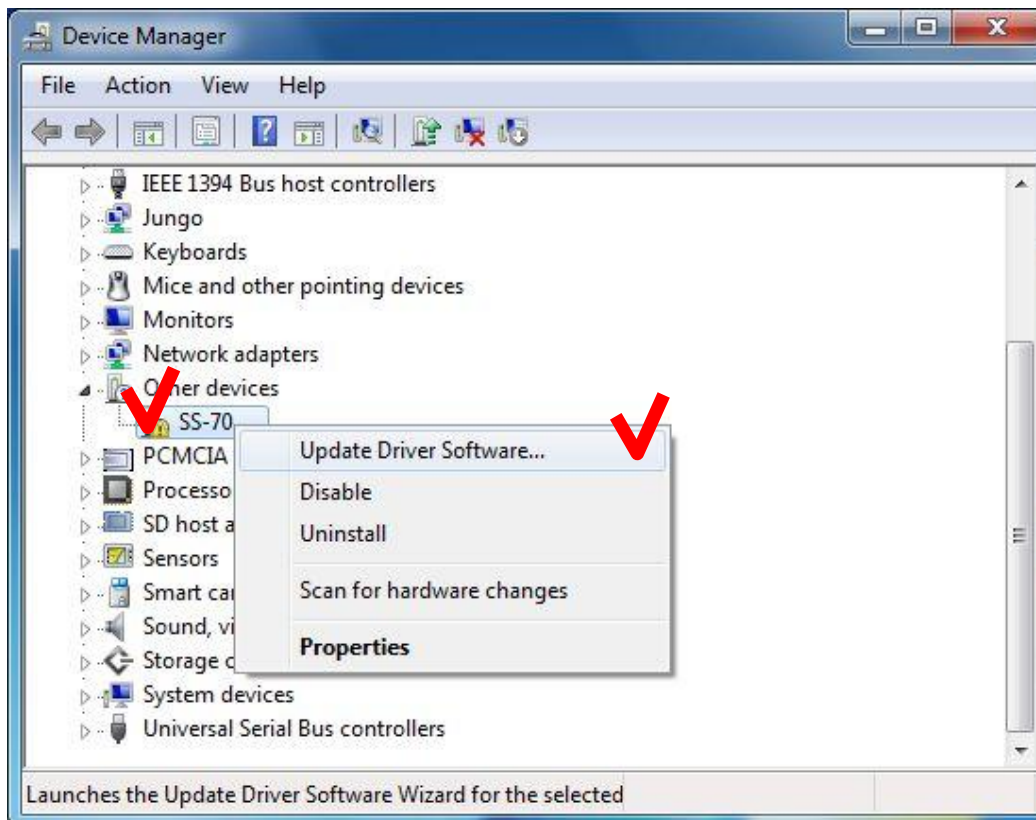
If the trouble is not fixed despite performing the following procedure, please contact us.

7.1. Installation of the Device Driver Failed

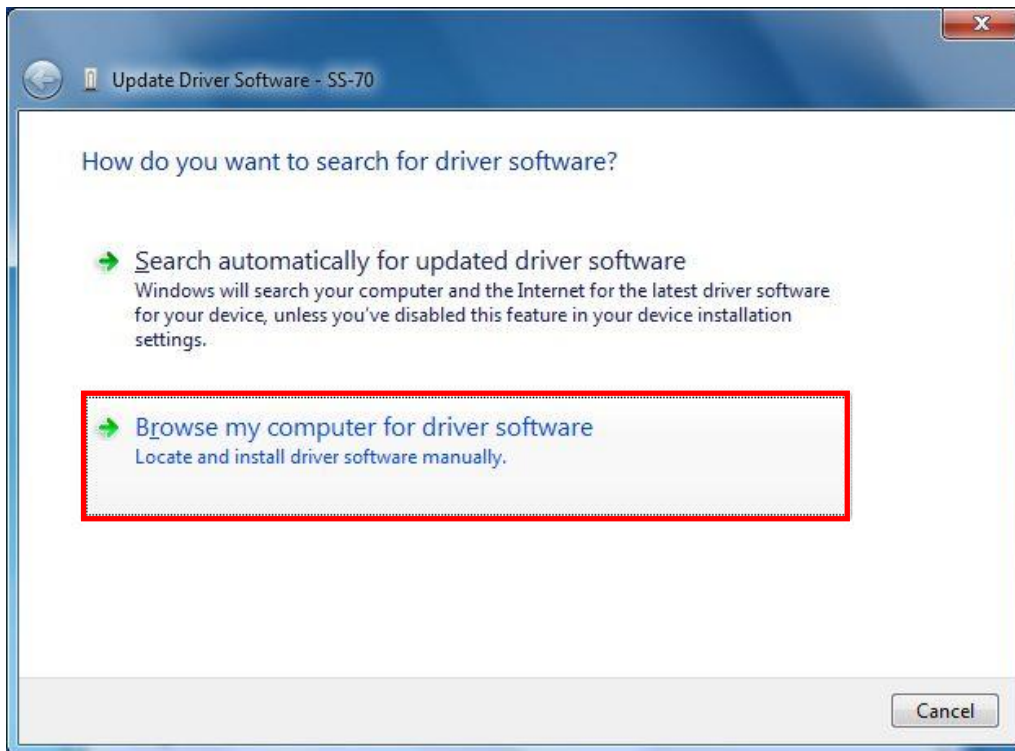
When first connecting to PC, the device driver should be installed automatically. If the installation failed (the following window was shown), install device driver according to procedure listed in the following pages.



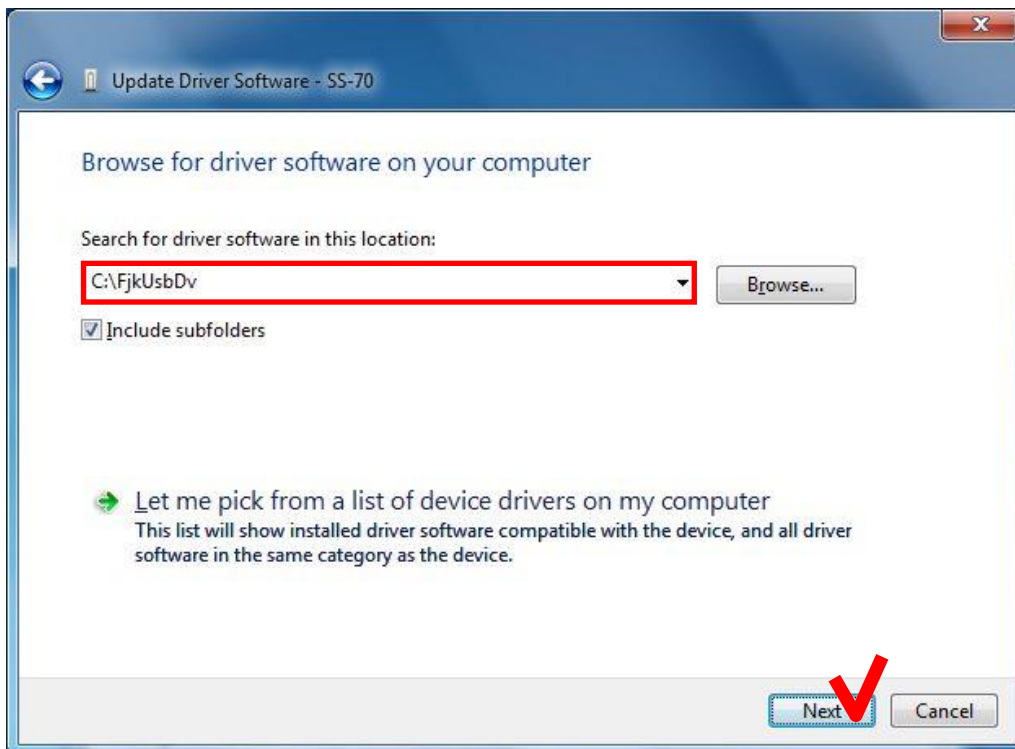
- (1) Open [Start] > [Control Panel] > [System] > [Hardware] > [Device Manager] menu to open “Device Manager”.
- (2) Right-click on “SS-70” in the [Jungo] or [Other devices] and select “Update Driver Software...”.
If “SS-70” is not listed, confirm the following.
 - The splicer is connected to PC with USB cable.
 - The splicer is turned on.



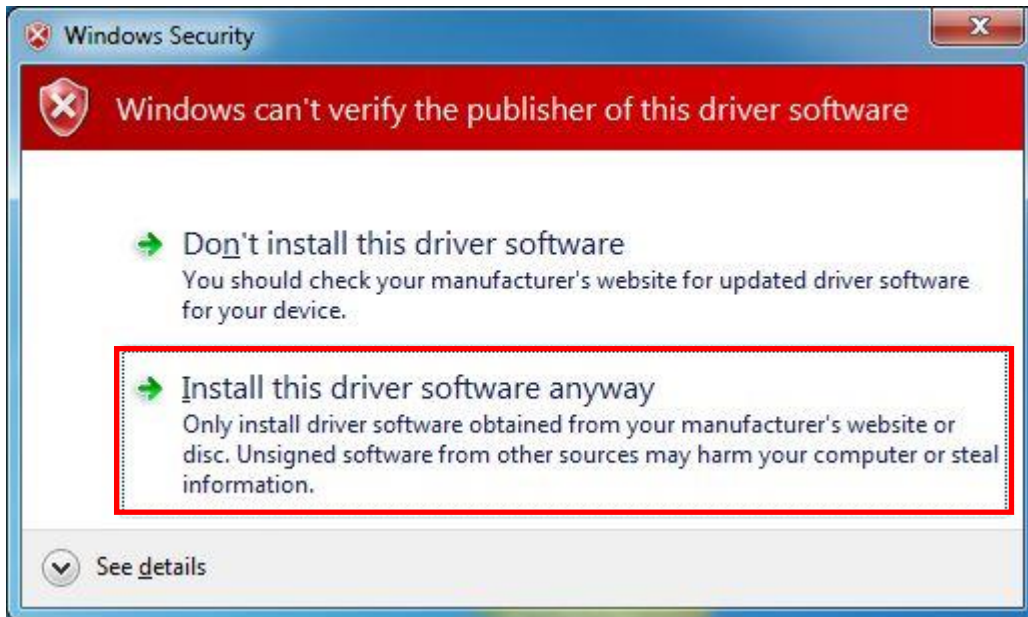
(3) Click “Browse my computer for driver software”.



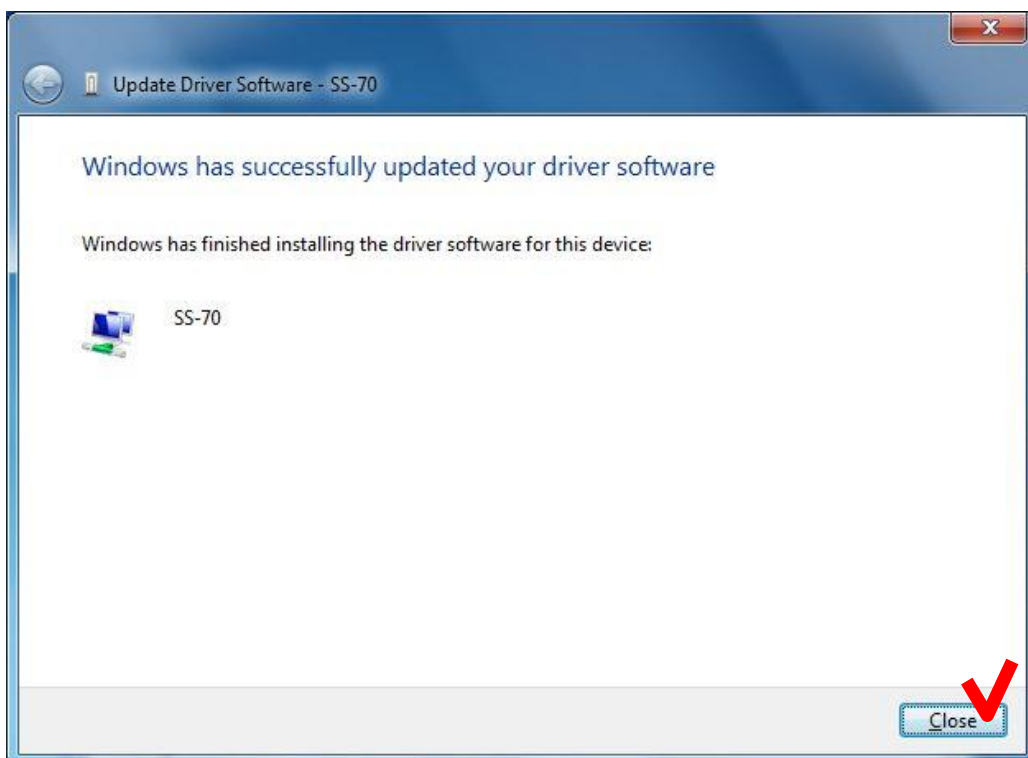
(4) Click [Browse...] and select “C:\FjkUsbDv”. After selecting, check [Include subfolders] and click the [Next] button.



- (5) When the following message is shown, click “Install this driver software anyway”.



- (6) When the following window is shown, click the [Close] button



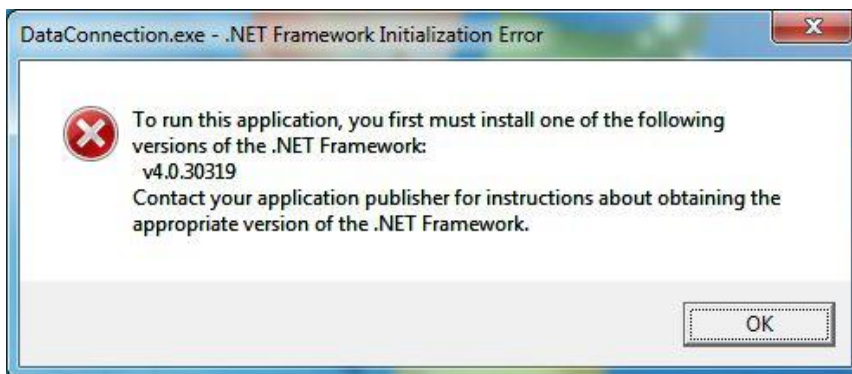
- (7) Close “System Properties” and “Device Manager”.

7.2. Data Connection Does Not Run

Data Connection is not shown although the icon was clicked

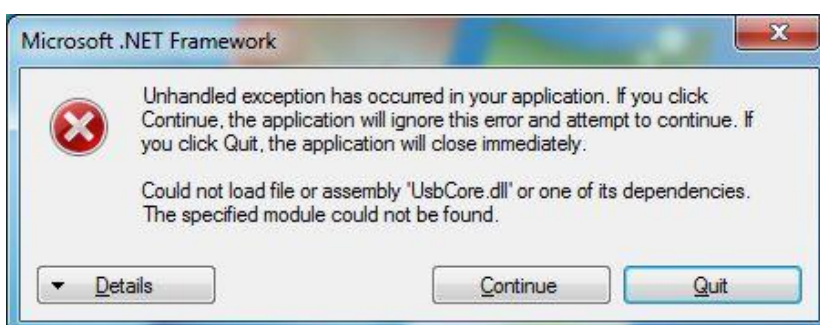
- (a) Windows may not be updated to latest version. Perform Windows Update or Microsoft Update to update Windows.
- (b) Memory capacity or CPU speed may be insufficient to meet the system requirement.
 - Close other running applications.
 - Confirm that memory capacity and CPU speed meet the system requirement.

“.NET Framework Initialization Error” is shown when Data Connection is launched



- (a) “Microsoft .NET Framework 4 Client Profile” may not be installed. Double-click “dotNetFx40_Client_x86_x64.exe” in “DotNetFx” folder in instruction CD to install “Microsoft .NET Framework 4 Client Profile”.
- (b) Windows may not be updated to latest. Perform Windows Update or Microsoft Update to update Windows.

.NET Framework error is shown when Data Connection is launched



- (a) “Microsoft Visual C++ 2010 Redistributable” may not be installed. Double-click following file in “vc redistrib” folder in instruction CD to install “Microsoft Visual C++ 2010 Redistributable”.
 64bit OS: vcredist_x64.exe
 32bit OS: vcredist_x86.exe
- (b) Windows may not be updated to latest version. Perform Windows Update or Microsoft Update to update Windows.

7.3. Installation of Firmware Failed

If the installation of firmware failed, the following problem will occur. When the problem occurs, perform the following procedure to install the firmware again.

- The splicer cannot be turned on (Splicer does not restart after installation).
 - The splicer turns on, but “READY” state is not indicated.
- (1) Turn off the splicer.
 - (2) Then keep holding down the [RESET] key and turn on the splicer again. (Keep holding down keys until “SOFTWARE UPDATE MODE” is indicated on the screen.)
 - (3) In the [Firmware Update] page of Data Connection, click [Download and install latest firmware] button to install the firmware again.



If the update failure persists or you have some questions about this procedure, please contact us.

7.4. USB Communication Does Not Works

Confirm that the “CONNECTED” is indicated at bottom left of Data Connection window.

“DISCONNECTED” is indicated

- (a) Confirm that the splicer is connected to PC with USB cable.
- (b) Confirm that the splicer is turned on.
- (c) Confirm that the splicer is in “READY” state.
Press [RESET] key to change splicer to “READY” state.
- (d) If the external USB hub is used, connect the USB cable to PC directly.
- (e) USB driver may not be installed correctly.
Install the Data Connection again.

“Communication Error” message was shown during downloading or uploading (“CONNECTED” is indicated)

- (a) Confirm that the splicer is in “READY” state.
Press [RESET] key to change splicer to “READY” state.
- (b) If the external USB hub is used, connect the cable to PC directly.
- (c) The firmware version of splicer may not be the latest.
If the firmware is not the latest, update the firmware of splicer.

8. Contact Address

Inquiries concerning products should be made to the nearest distributor or one of the following:

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URL <http://www.fujikura.co.uk>

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U.S.A.

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P.O.Box 3127 Spartanburg, SC 29304-3127

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