

SAM4S Printer Series Windows Driver & Installer

User Guide v7.2

All specifications are subject to change without notice



SAM4S

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CHAPTER 1.

Getting Started

1.1. Overview

1.2. Operating Environment

1.3. Requirements

1.4. Preparations

1.1. Overview

This document contains how to install/uninstall a SAM4S printer with an interface and contains how to configure a SAM4S printer.

See below on installing SAM4S printer:

1. Verify interface of SAM4S printer (p.10)
2. Install proper SAM4S printer driver
 - 1) In case of a serial printer. (p.13)
 - 2) In case of a parallel printer. (p.15)
 - 3) In case of an USB printer. (p.17)
 - 4) In case of an USB to Serial printer (Windows 7). (p.20)
 - 5) In case of an USB to Serial printer (Windows 10). (p.22)
 - 6) In case of an Ethernet printer. (p.24)
3. Make sure installed printer is properly works (p.26)
4. Refer to uninstall a printer (p.28)

The SAM4S printer driver installer (V3.0.0 or above) supports following models:

1. SAM4SEllixPrinterDriverInstallerV3.x.x.exe
 - 1) ELLIX30/30III/40 (32bit / 64bit)
 - 2) ELLIX35/35III/45 (32bit / 64bit)
 - 3) ELLIX32/42/37 (32bit / 64bit)
2. SAM4SGiantPrinterDriverInstallerV3.x.x.exe
 - 1) GIANT-100 (32bit / 64bit)
 - 2) GIANT-150 (32bit / 64bit)
 - 3) GIANT PRO (32bit / 64bit)
3. SAM4SGcubePrinterDriverInstallerV3.x.x.exe
 - 1) GCUBE-100 (32bit / 64bit)
 - 2) GCUBE-102 (32bit / 64bit)

The SAM4S printer driver installer supports English and Korean.

» Refer to 1.2. Operating Environment

1.2. Operation Environment

x86 (32bit)	POSReady7, Windows Embedded 8/8.1 Pro Industry Windows 10 IoT Enterprise, Windows 7, Windows 8/8.1, Windows 10
x64 (64bit)	POSReady7, Windows Embedded 8/8.1 Pro Industry Windows 10 IoT Enterprise, Windows 7, Windows 8/8.1, Windows 10

1.3. Requirements

 **Warning :** This requirement should be satisfied for using an SAM4S printer.

- To install/uninstall a printer, '.net Framework 3.5' or above should have installed.
- To install an SAM4S printer properly, please make sure any related hardware works fine and interface of printer is well connected.

1.4. Preparations

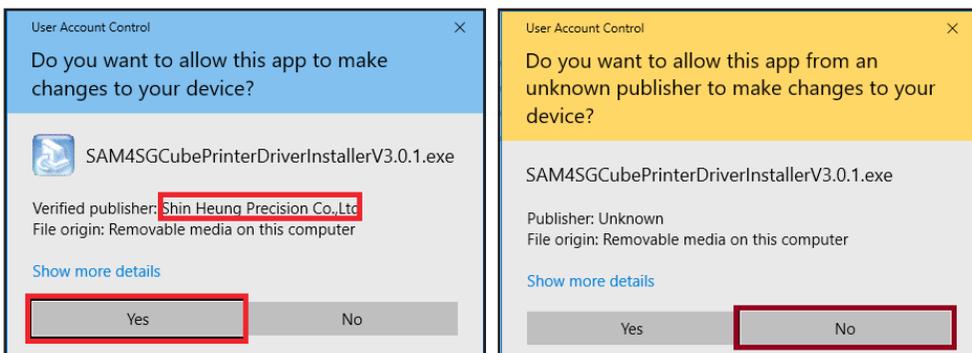
 **Warning :** Restart PC before printer driver installation.

Preparations for using the SAM4S windows driver installer:

1. Double click the provided EXE file.



In Windows 7 or above OS, 'User Account Control (UAC)' alerts window appear. Confirm that the verified publisher is 'Shin Heung Precision Co, .Ltd'. If not, or if it is 'unknown', stop installation immediately and download new one from SAM4S homepage.



1.4. Preparations

2. SAM4S Windows Driver folder will be automatically installed in the following path.

1) ELLIX Series

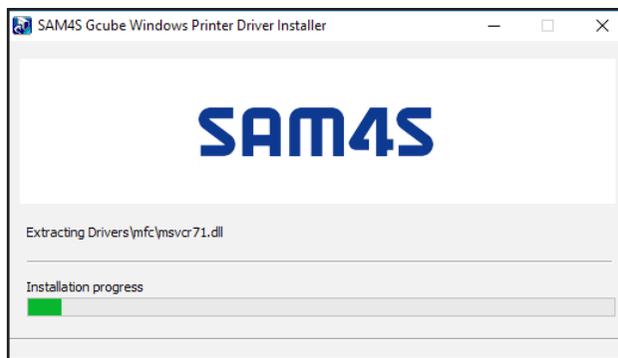
- 32bit OS : 'Program Files\SAM4S ELLIX PrinterDriver' folder
- 64bit OS : 'Program Files (x86)\SAM4S ELLIX PrinterDriver' folder

1) GIANT Series

- 32bit OS : 'Program Files\SAM4S GIANT PrinterDriver' folder
- 64bit OS : 'Program Files (x86)\SAM4S GIANT PrinterDriver' folder

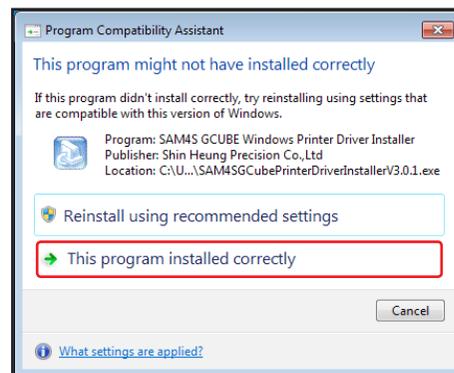
1) Gcube Series

- 32bit OS : 'Program Files\SAM4S Gcube PrinterDriver' folder
- 64bit OS : 'Program Files (x86)\SAM4S Gcube PrinterDriver' folder



3. This EXE file is the 'WinRAR 32bit executable-extracting' file so compatibility message can be displayed on a 64bit OS.

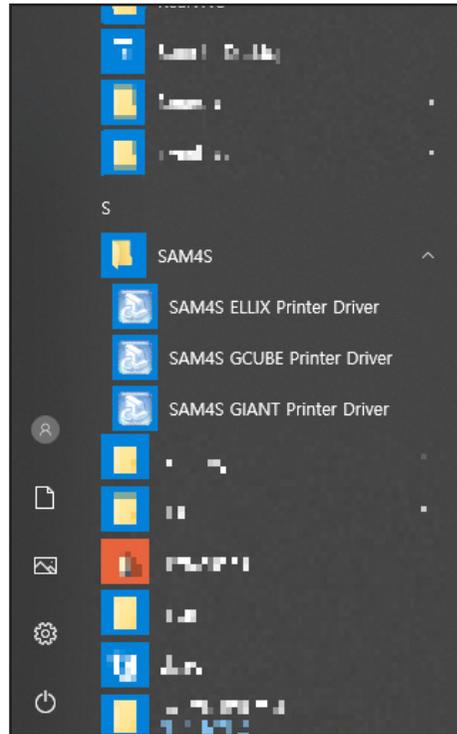
If following message is shown, click 'This program installed correctly' to progress. This will not affect any program or system.



4. The SAM4S windows driver installer will be started automatically after extracting files.

1.4. Preparations

5. You can execute the SAM4S printer driver installer through shortcut that is on the 'Program Menu'. Please refer 'Chapter 2. Installation of SAM4S printer' for detail.



CHAPTER 2.

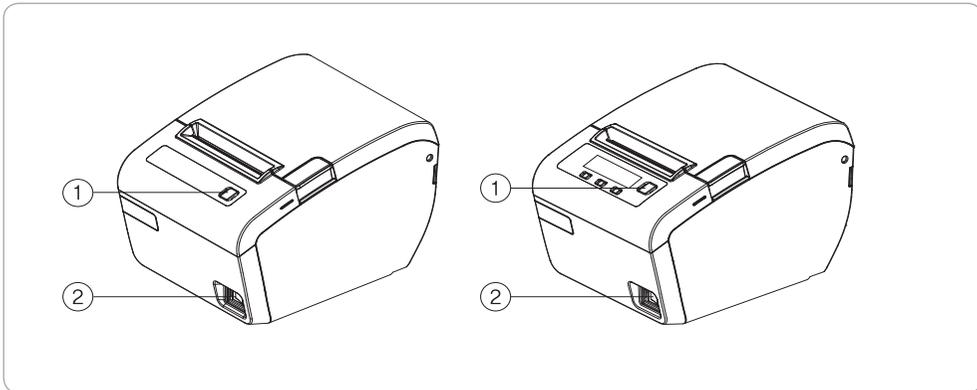
Installation of SAM4S printer

- 2.1. Verify interface type of SAM4S printer
- 2.2. Installing a Serial printer
- 2.3. Installing a Parallel printer
- 2.4. Installing an USB printer
- 2.5. Installing an USB to serial printer (Windows 7)
- 2.6. Installing an USB to serial printer (Windows 10)
- 2.7. Installing an Ethernet printer
- 2.8. Checking installed printer

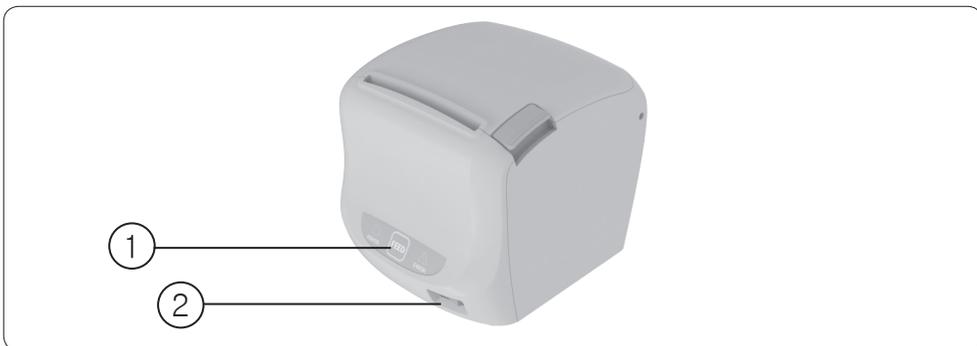
2.1. Verify interface type of SAM4S printer

Check the interface of printer from the 'Self-Test'. The self-test checks the following:

1. Make sure paper roll has been installed properly.
2. ② Turn on the power while ① holding down the FEED button.
The self-test begins.



pic1) ELLIX30/30III/35III, ELLIX40/45 Series



pic2) GIANT-100 / GIANT-150 / GIANT PRO

2.1. Verify interface type of SAM4S printer



pic3) GCUBE-100 / GCUBE-102

3. The self-test prints the current printer status, which provides the control firmware version and the printer setting. After self-test prints, a pattern using the built-in character set prints.
4. The self-test automatically ends and cuts the paper after printing the following.

**** Completed ****

5. The printer is ready to receive data as soon as it completes the self-test.
6. You can find interface settings of SAM4S printer from the self-test as follow.

Interface list

1. ELLIX Series

- USB INTERFACE for 'SERIAL / VCOM CONNECTION'
- USB-II INTERFACE for 'USB CONNECTION'
- PARALLEL INTERFACE for 'PARALLEL CONNECTION'
- Ethernet-II INTERFACE for 'ETHERNET CONNECTION'
- WIRELESS LAN (WLAN) INTERFACE for 'ETHERNET CONNECTION'
- SERIAL (RS-232C) INTERFACE - 25 pin for 'SERIAL / VCOM CONNECTION'
- SERIAL/WIRELESS INTERFACE - 9 pin for 'SERIAL / VCOM CONNECTION'

```

SAM4S ELLIX30III
                                VERSION STD 3.07
                                PGM CHECKSUM : A3DE
                                BOOT CHECKSUM : 2EFO
                                DOWN CHECKSUM : 434E

CURRENT SETTING : PAPER WIDTH 80mm/MONO
PRINTING SPEED  : 230mm/sec
USB INTERFACE
BAUD RATE       : 115200 BPS
PARITY          : NONE
DATA BITS       : 8 BITS
STOP BIT        : 1 BIT
RECEIVE BUF SIZE : 4 Kbytes
EMULATION       : EPSON
USE KP BELL     : NO
AUTO-CUTTER     : Enable
CODE PAGE       : PC 437
UPSIDE-DOWN     : Disable
PAPER SAVE MODE : OFF
  
```

2.1. Verify interface type of SAM4S printer

2. GIANT Series

- USB INTERFACE for 'SERIAL / VCOM CONNECTION'
- USB-II INTERFACE for 'USB CONNECTION'
- Ethernet-II INTERFACE for 'ETHERNET CONNECTION'
- WIRELESS LAN (WLAN) INTERFACE for 'ETHERNET CONNECTION'
- SERIAL (RS-232C) INTERFACE - 25 pin for 'SERIAL / VCOM CONNECTION'
- SERIAL/WIRELESS INTERFACE - 9 pin for 'SERIAL / VCOM CONNECTION'

```

SAM4S GIANT-100
                                VERSION STD 1.55
                                PGM CHECKSUM : 266F
                                BOOT CHECKSUM : 4443
                                DOWN CHECKSUM : 934F

CURRENT SETTING : PAPER WIDTH 80mm/MONO
PRINTING SPEED  : 250mm/sec
SERIAL(RS-232C) INTERFACE
BAUD RATE       : 115200 BPS
PARITY          : NONE
DATA BITS       : 8 BITS
STOP BIT        : 1 BIT
HANDSHAKING     : DTR/DSR
RECEIVE BUF SIZE : 64 Kbytes
EMULATION       : EPSON
USE KP BELL     : NO
AUTO-CUTTER    : Enable
CODE PAGE      : PC 437
  
```

3. Gcube Series

- SERIAL(RS-232C) INTERFACE for SERIAL CONNECTION'
- USB INTERFACE
USB DESCRIPTION : PRINTER CLASS for 'USB CONNECTION'
- USB INTERFACE
USB DESCRIPTION : VCOM 'USB CONNECTION'
- Ethernet-II INTERFACE for 'ETHERNET CONNECTION'
- WIRELESS LAN (WLAN) INTERFACE for 'ETHERNET CONNECTION'

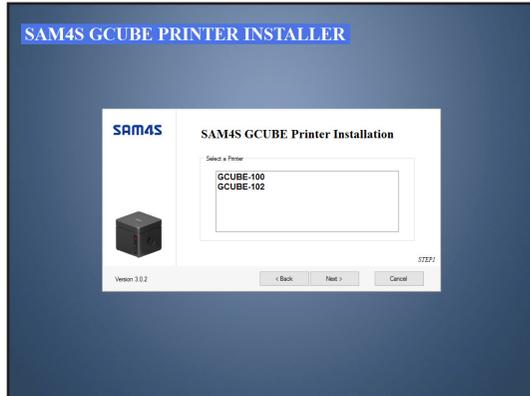
```

SAM4S Gcube-102
                                VERSION STD 0.75
                                PGM CHECKSUM : C467
                                BOOT CHECKSUM : CA07
                                DOWN CHECKSUM : 7642

CURRENT SETTING : PAPER WIDTH 80mm/MONO
PRINTING SPEED  : 200mm/sec
PRINT RESOLUTION : 203DPI
SERIAL(RS-232C) INTERFACE
BAUD RATE       : 115200 BPS
PARITY          : NONE
DATA BITS       : 8 BITS
STOP BIT        : 1 BIT
HANDSHAKING     : DTR/DSR
USB INTERFACE
USB DESCRIPTION : PRINTER CLASS
Firmware Update : USB I/F
RECEIVE BUF SIZE : 4 Kbytes
EMULATION       : EPSON
USE KP BELL     : NO
AUTO-CUTTER    : Enable
CODE PAGE      : PC 437
  
```

2.2. Installing a Serial printer

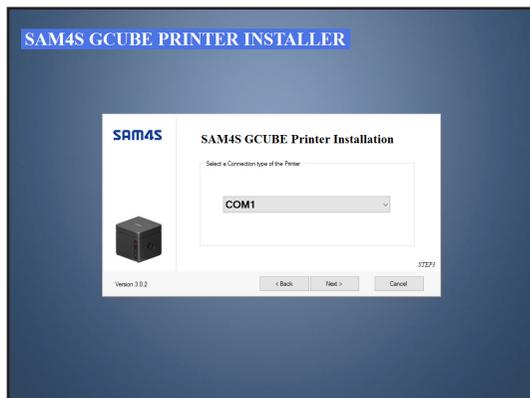
1. Selecting a printer that will be installed.



2. Selecting the 'SERIAL / VCOM CONNECTION'.



3. Selecting a port.
 - If you don't have a serial port on your system, you can't progress further. For solution of this issue, please refer p.52.



2.2. Installing a Serial printer

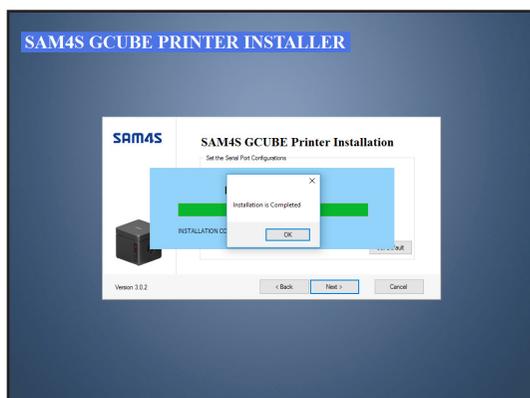
4. Configuring the selected port.



5. Confirming installation.

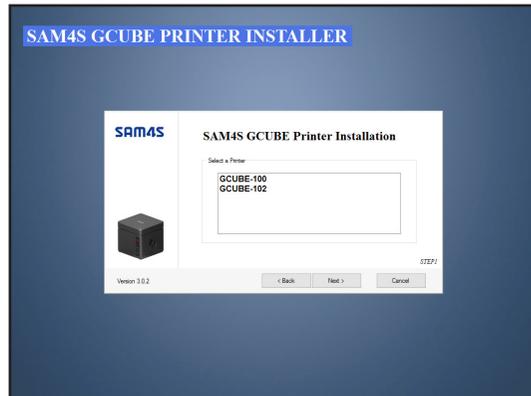


6. Installation completed.



2.3. Installing at Parallel printer

1. Selecting the printer for install.

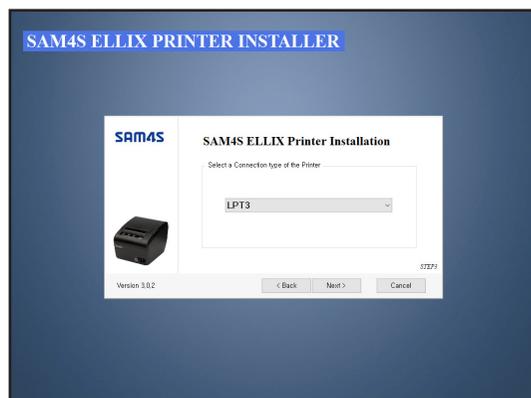


2. Selecting the 'PARALLEL CONNECTION'.



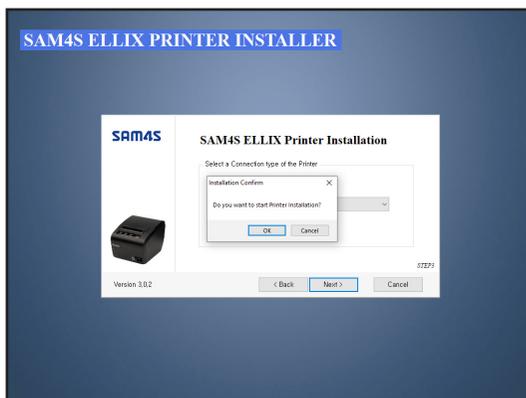
3. Confirming installation.

- If you don't have a parallel port on your system, you can't progress further. For solution of this issue, please refer p.55.



2.3. Installing a Parallel printer

4. Confirming installation.



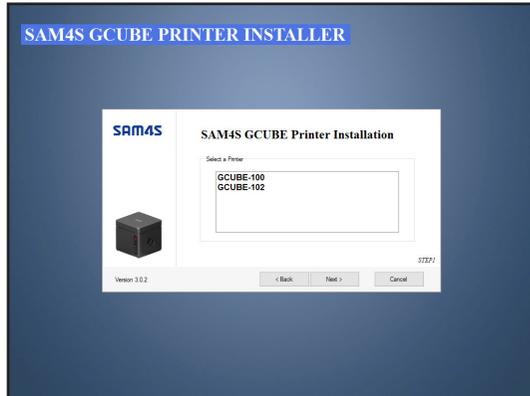
5. Installation completed.



2.4. Installing an USB printer

 **Warning:** Before finishing installation of USB printer, printer should not be connected with PC

1. Selecting the printer for install.



2. Selecting the 'USB CONNECTION'.



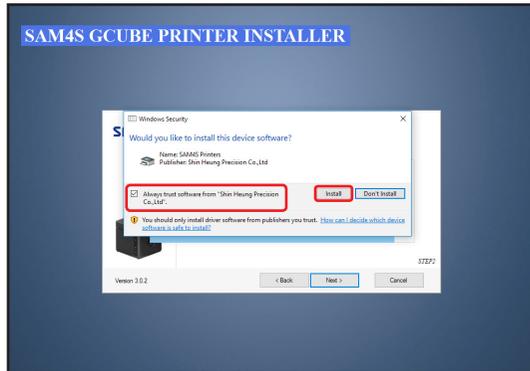
3. Confirming installation.



2.4. Installing an USB printer

4. Confirming security check.

- In case of Windows 7 / 8 / 8.1 / 10
 - » Once you check the 'Always trust software ...' and click the install, the Windows Security message will not display any more.



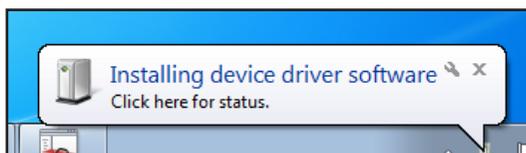
5. Installation completed.



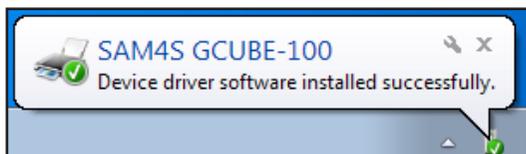
2.4. Installing an USB printer

6. Connecting printer so that the printer is installing.

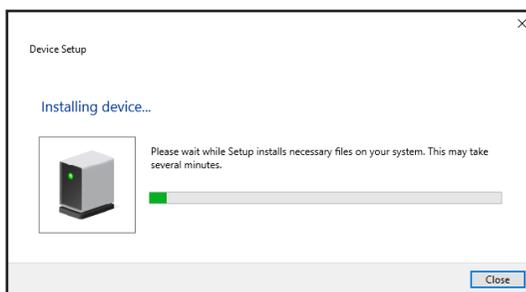
- In case of Windows 7
 - » Notification of connection.
OS will setup the printer automatically.



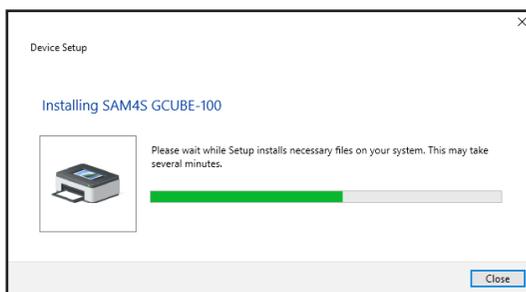
- » Installation completed.



- In case of Windows 8 / 8.1 / 10
 - » Notification of connection.
OS will setup the printer automatically.



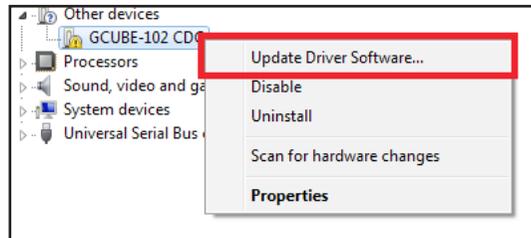
- » Automatically detect the printer, installation is complete in a few moments.



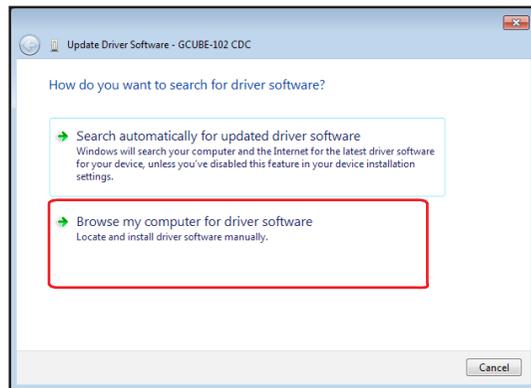
2.5. Installing an USB to Serial printer (Win 7)

1. Run the installer. Click the 'Cancel' button and close the window, when the 'SAM4S Printer Installer' window displayed.
2. Connect the printer that has been changed to 'USB to Serial(VCOM) mode' to PC and turn on the power.
3. Open 'Device Manager'

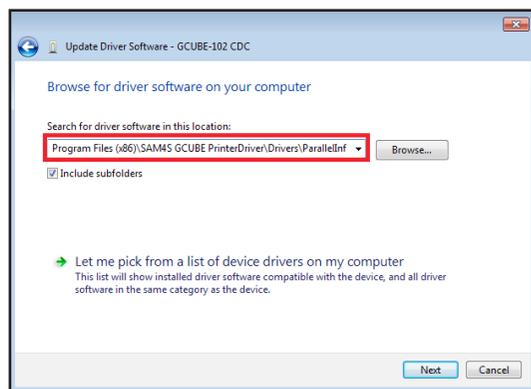
4. 'Printer model name' + CDC or 'Printer model name' will be displayed in 'Other devices'.
Click the right mouse button and click 'Update Driver Software'.



5. Click the 'Browse my computer for driver software(R)'.
Locate and install driver software manually.

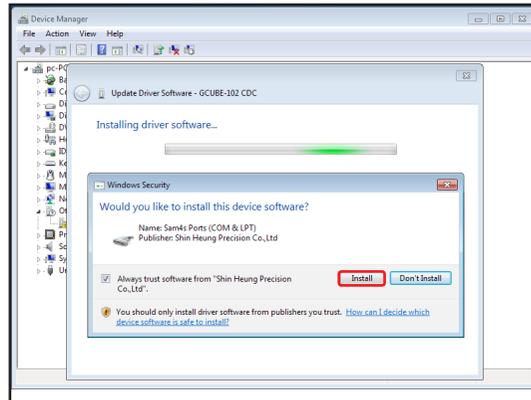


6. Select the 'ParallelInf' folder in the 'SAM4S Printer driver' folder. And click the 'Next' button in bottom.

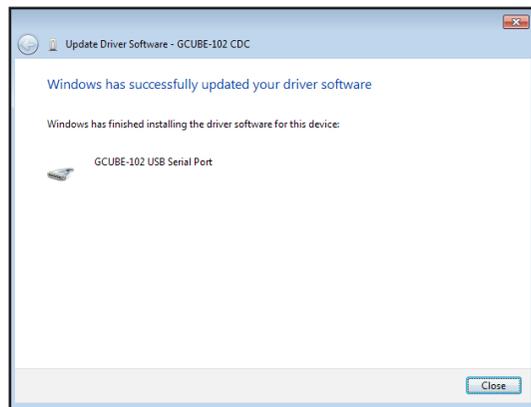


2.5. Installing an USB to Serial printer (Win 7)

7. The driver installation 'Security Alert' window will appear. Click the 'Install' button.



8. The driver has been successfully installed. If the installation fails or an error code is displayed, contact your dealer or our investigator.



9. Check the VCOM port is displayed in 'Device Manager'

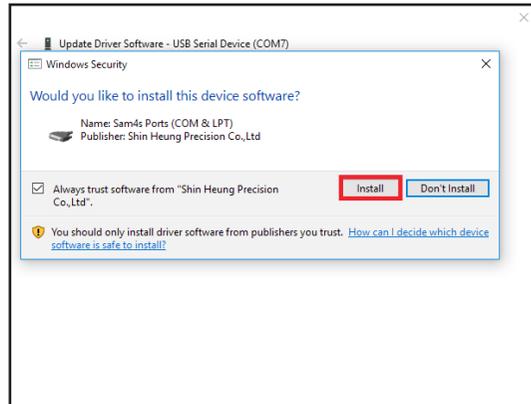


10. Proceed in the same way as 'Installing an USB printer'.

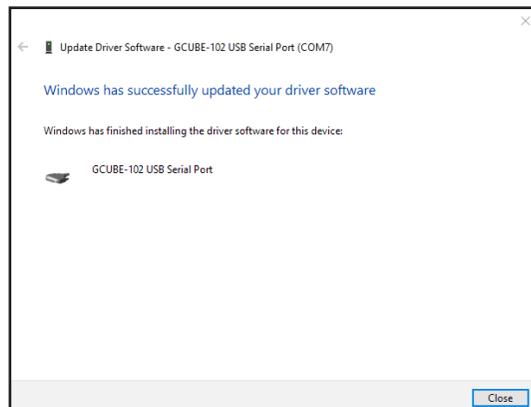
2.6. Installing an USB to Serial printer (Win 10)

7. The driver installation

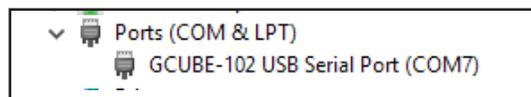
'Security Alert' window will appear. Click the 'Install' button.



8. The driver has been successfully installed. If the installation fails or an error code is displayed, contact your dealer or our investigator.



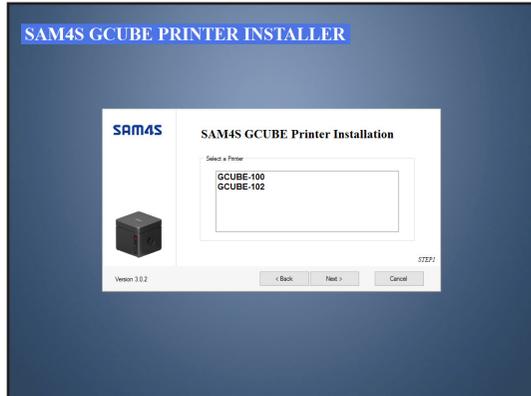
9. Check the VCOM port is displayed in 'Device Manager'.



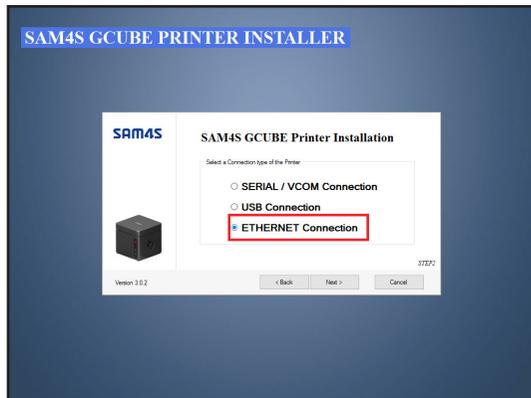
10. Proceed in the same way as 'Installing an USB printer'.

2.7. Installing an Ethernet printer

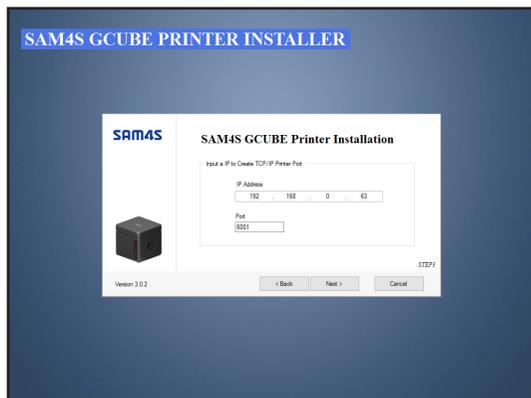
1. Selecting a printer that will be installed.



2. Selecting the 'ETHERNET CONNECTION'.



3. Configuration for TCP/IP.
 - Confirm the currently set IP address and PORT number using Self-Test.
 - Enter the IP Address and Port.
 - Default Port of SAM4S printer: 6001

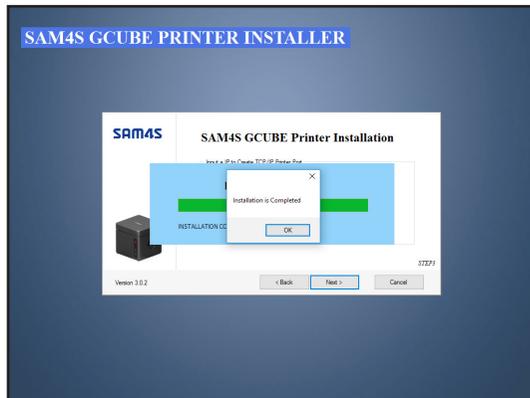


2.7. Installing an Ethernet printer

4. Confirming installation.



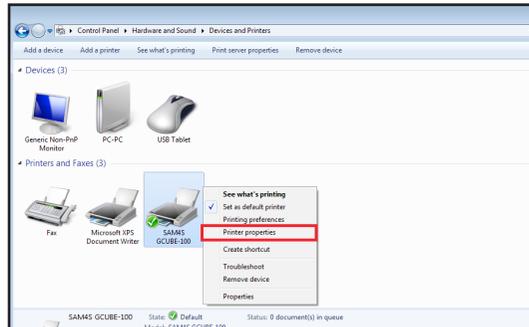
5. Installation completed.



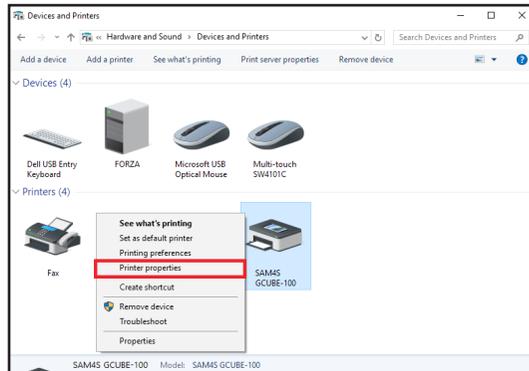
2.8. Checking installed printer

1. Checking installed printer.

- In case of Windows 7.

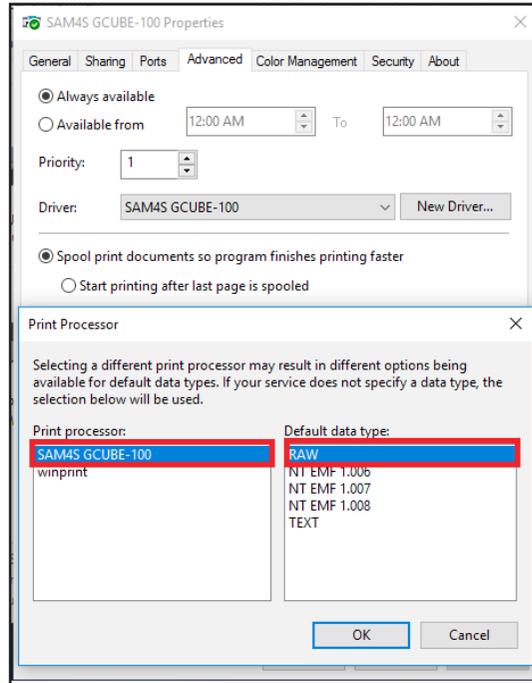


- In case of Windows 8 / 8.1 / 10.

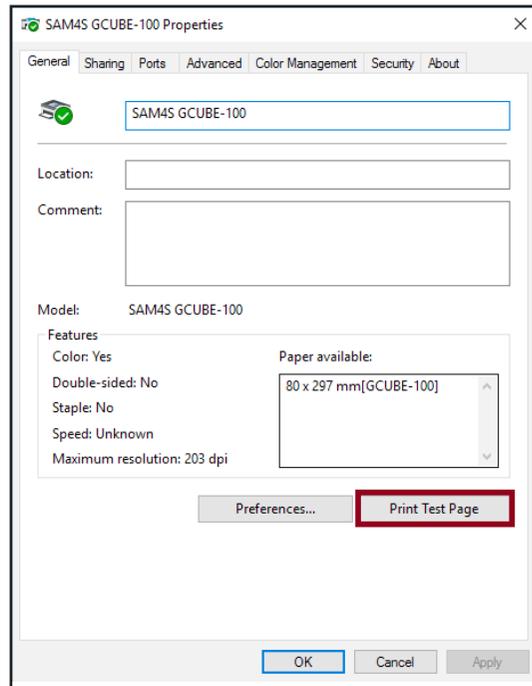


2.8. Checking installed printer

2. Verifying properties that are 'Driver' and 'Print Processor' of installed printer from the Advance tap.



3. Printing test page from the General tap and checking the printed paper.



CHAPTER 3.

Uninstallation of SAM4S printer

3.1. Uninstalling printer(s)

3.2. Remain information

3.1. Uninstalling printer(s)

1. There are two ways to start uninstallation.
 - 1) Starting from 'Add or Remove Program'.
 - 2) Starting from 'Program Menu'.

2. Selecting the 'SAM4S Printer Uninstall'.

If printer were installed, you can see Installation / Uninstallation options.

'SAM4S Printer Uninstall' is selected as the default setting if you have an installed SAM4S printer.

If the SAM4S printer installer doesn't show the dialog despite you have an installed printer, please refer p.57.



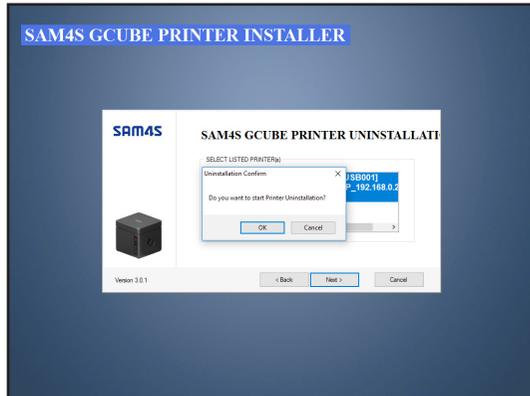
3. Selecting one or more Printer.

- Multiple selections are possible Using the 'Shift' of 'Ctrl' keys on keyboard.
- Selected printer that will be uninstalled.



3.1. Uninstalling printer(s)

4. Confirming uninstallation.



5. Uninstallation completed.



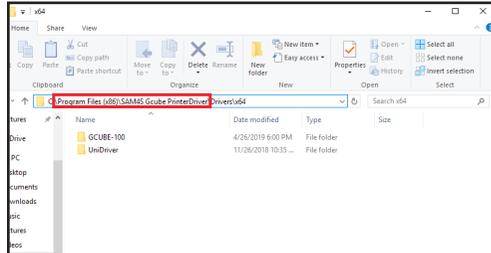
3.2. Remain information

Even though every installed printer is uninstalled, files and registry key are remained on your system as below:

1. Remain files

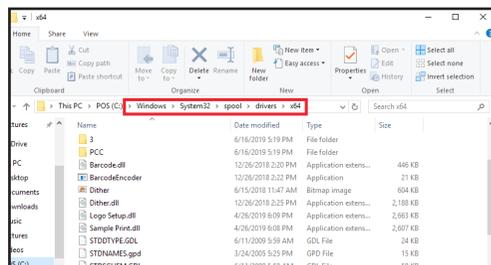
1) SAM4S printer driver installer files

- ELLIX Series
 - 32bit : SAM4S ELLIX Printer Driver of Program Files folder
 - 64bit : SAM4S ELLIX Printer Driver of Program Files (x86) folder
- GIANT Series
 - 32bit : SAM4S GIANT Printer Driver of Program Files folder
 - 64bit : SAM4S GIANT Printer Driver of Program Files (x86) folder
- Gcube Series
 - 32bit : SAM4S Gcube Printer Driver of Program Files folder
 - 64bit : SAM4S Gcube Printer Driver of Program Files (x86) folder



2) Driver files

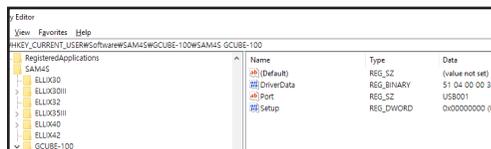
- 32bit : w32x86 of drivers folder
- 64bit : x64 of drivers folder



2. Remain registry keys

1) V3.0.0 or above

- DriverData



Path : HKEY_CURRENT_USER\SOFTWARE\SAM4S\

CHAPTER 4.

Specifications of SAM4S printer

4.1. Printer fonts

4.2. Printer resolutions & Paper size

4.1. Printer fonts

These drivers support pre-installed fonts as well as Windows fonts. Use the pre-installed fonts allow you faster printing. Available printer fonts are listed below.

“Built-in fonts of a printer” can be specified with the application programs. The “built-in fonts” are as follows.

- Printer Font (type A, Large)
- Printer Font (type B, Small)

The font that user can choose in to the application are as follows. 2 types of character-height can be chosen in each font. They are two kinds of the FontAXxX (Ext.) font and the FontAXxX. The character code of 128 bytes of 80H – FFH varies in the difference in these printer fonts.

A FontAXxX font supports ANSI character code (Code Page 2: 850). And, a FontAXxX (Ext.) font supports IBM expansion character code (Code Page 0: 437). A FontAXxX (255) font supports space page. (Code Page: 255).

Printer Fonts			Character size(dot)	Sizes (point)
FontA 1x1	FontA 1x1 (Ext.)	FontA 1x1 (255)	FontA1x1 (12x24)	9.5
FontA 1x2	FontA 1x2 (Ext.)	FontA 1x2 (255)	FontA1x2 (12x48)	19
FontA 2x1	FontA 2x1 (Ext.)	FontA 2x1 (255)	FontA2x1 (24x24)	9.5
FontA 2x2	FontA 2x2 (Ext.)	FontA 2x2 (255)	FontA2x2 (24x48)	19
FontA 2x4	FontA 2x4 (Ext.)	FontA 2x4 (255)	FontA2x4 (24x96)	38.5
FontA 4x2	FontA 4x2 (Ext.)	FontA 4x2 (255)	FontA4x2 (48x48)	19
FontA 4x4	FontA 4x4 (Ext.)	FontA 4x4 (255)	FontA4x4 (48x96)	38.5
FontA 4x8	FontA 4x8 (Ext.)	FontA 4x8 (255)	FontA4x8 (48x192)	77
FontA 8x4	FontA 8x4 (Ext.)	FontA 8x4 (255)	FontA8x4 (96x96)	38.5
FontA 8x8	FontA 8x8 (Ext.)	FontA 8x8 (255)	FontA8x8 (96x192)	77

4.1. Printer fonts

FontB 1x1	FontB 1x1 (Ext.)	FontB 1x1 (255)	FontB1x1 (9x17)	7
FontB 1x2	FontB 1x2 (Ext.)	FontB 1x2 (255)	FontB1x2 (9x34)	13.5
FontB 2x1	FontB 2x1 (Ext.)	FontB 2x1 (255)	FontB2x1 (18x17)	7
FontB 2x2	FontB 2x2 (Ext.)	FontB 2x2 (255)	FontB2x2 (18x34)	13.5
FontB 2x4	FontB 2x4 (Ext.)	FontB 2x4 (255)	FontB2x4 (18x68)	27
FontB 4x2	FontB 4x2 (Ext.)	FontB 4x2 (255)	FontB4x2 (36x34)	13.5
FontB 4x4	FontB 4x4 (Ext.)	FontB 4x4 (255)	FontB4x4 (36x68)	27
FontB 4x8	FontB 4x8 (Ext.)	FontB 4x8 (255)	FontB4x8 (36x136)	54.5
FontB 8x4	FontB 8x4 (Ext.)	FontB 8x4 (255)	FontB8x4 (72x68)	27
FontB 8x8	FontB 8x8 (Ext.)	FontB 8x8 (255)	FontB8x8 (72x136)	54.5

Korean 1x1	Korean Version OS ONLY	--	9.5
Korean 1x2	Korean Version OS ONLY	--	19
Korean 2x1	Korean Version OS ONLY	--	9.5
Korean 2x2	Korean Version OS ONLY	--	19
Korean 2x4	Korean Version OS ONLY	--	38.5
Korean 4x2	Korean Version OS ONLY	--	19
Korean 4x4	Korean Version OS ONLY	--	38.5
Korean 4x8	Korean Version OS ONLY	--	77
Korean 8x4	Korean Version OS ONLY	--	38.5
Korean 8x8	Korean Version OS ONLY	--	77

Printer font for special function	Function	Size (font / dot)
FontControl	Open Drawer 1/2	(10 / 12 x 24)
	Cut receipt	
	Cut receipt(without paper feeding)	
	Justification(Left/Center/Right)	
	Output HT, Output LF, Output CR	
	Barcode printing	
	Print NV bit image	

4.1. Printer fonts

SAM4S Printer can be used to execute a variety of special non-printing functions, as indicated in the table below. You can execute these functions by selecting the printer's special "FontControl" font and then sending the appropriate character code to the driver.

(Note that you cannot use the "FontControl" font to print normal characters)

Character	Special Function
5	HT is output
6	LF is output
7	CR is output
a	Open Drawer 2 (50ms drive pulse width)
b	Open Drawer 2 (100ms drive pulse width)
c	Open Drawer 2 (150ms driver pulse width)
d	Open Drawer 2 (200ms drive pulse width)
e	Open Drawer 2 (250ms drive pulse width)
g	Cut Receipt (partial cut) without paper feeding
p	HRI characters are not added to the bar code
q	HRI character are added at the top of the bar code using Font A
r	HRI characters are added at the bottom of the bar code using Font A
s	HRI characters are added at the top of the bar code using Font B
t	HRI characters are added at the bottom of the bar code using Font B
w	Text is aligned left
x	Text is centered
y	Text is aligned right
A	Open Drawer 1 (50ms drive pulse width)
B	Open Drawer 1 (100ms drive pulse width)
C	Open Drawer 1 (150ms driver pulse width)
D	Open Drawer 1 (200ms drive pulse width)
E	Open Drawer 1 (250ms drive pulse width)
G	NV bit image No 1 is printed in the Normal mode
H	NV bit image No 2 is printed in the Normal mode
I	NV bit image No 3 is printed in the Normal mode
J	NV bit image No 4 is printed in the Normal mode
K	NV bit image No 5 is printed in the Normal mode
P	Cut Receipt (partial cut)
[NV bit image No 1 is printed in the Double Height Double Width mode
]	NV bit image No 2 is printed in the Double Height Double Width mode
^	NV bit image No 3 is printed in the Double Height Double Width mode
_	NV bit image No 4 is printed in the Double Height Double Width mode
`	NV bit image No 5 is printed in the Double Height Double Width mode

4.2. Printer resolutions & Paper sizes

- Resolutions

The resolution setting supported by the SAM4S printer are as follows. Please refer to the specifications of the printer for the correct resolution.

- 180 x 180 DPI
- 203 x 203 DPI

- Paper sizes

The paper sizes supported by SAM4S printer are as follow.

- 80 x 3276 mm
- 80 x 297 mm
- 80 x 200 mm
- 80 x 160 mm
- 80 x 120 mm
- 80 x 80 mm
- 80 x 40 mm
- 58 x 3276 mm
- 58 x 297 mm

The following table shows the recommended margins for SAM4S printer. Refer to this table when setting margins from your printing applications.

Printer	Margins				Printer Area
	Left[mm]	Right[mm]	Top[mm]	Bottom[mm]	Width[mm]
SAM4S	0	0	0	0	80

CHAPTER 5.

Properties of SAM4S Printer

5.1. Layout

5.2. Feed and Cut

5.3. Dithering

5.4. Custom Paper Size

5.5. Device Control

5.6. Barcode

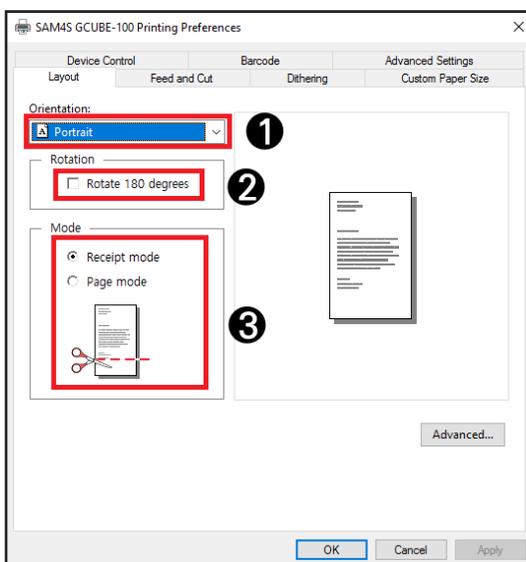
5.7. Advanced Settings

CHAPTER 5

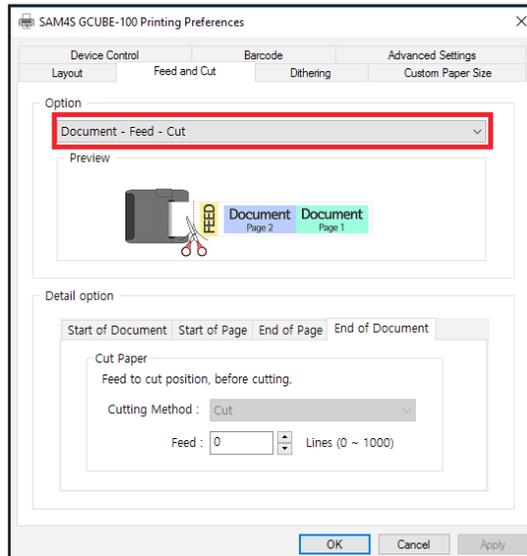
Properties of SAM4S Printer

5.1. Layout

1. You can set the print direction of the document
 - Portrait : Print in portrait.
 - Landscape : Print in landscape.
2. Prints can be rotated 180 degrees
3. You can set the print mode
 - Receipt mode : This is the normal receipt printing mode. Paper cutting according to the data to be printed.
 - Page mode : This mode cut the paper in page units when printing 2 or more pages of Word or PDF Document. Prints to fit the set paper size.



5.2. Feed and Cut



SAM4S Printer Drivers provides 8 paper feed and cut options.

1) Document – Feed – Cut

- » When two or more pages of a document are printed, they are printed continuously.
- » At the last page, The document are printed in order of 'Print' – 'Feed' – 'Paper Cut'.

2) Document – Feed – No cut

- » When two or more pages of a document are printed, they are printed continuously.
- » At the last page, The document are printed in order of 'Print' – 'Feed'.

3) Document – No feed – Cut

- » When two or more pages of a document are printed, they are printed continuously.
- » At the last page, The document are printed in order of 'Print' – 'Cut'.

4) Document – No feed – No cut

- » When two or more pages of a document are printed, they are printed continuously.
- » At the last page, The document are printed in order of 'Print' – 'Print Stop'.

5) Page – Feed – Cut

- » When two or more pages of a document are printed, Printer performs the 'Cut' operation at the end of each page.

5.2. Feed and Cut

6) Page – Feed – No cut

- » When printing two or more pages, Printer performs the 'Feed' operation at the end of each page.
- » At the end of the page, because the paper is not cut, It may look similar to 'Document Option'.

7) Page – No feed – Cut

- » When printing two or more pages, Printer performs the 'Cut' operation at the end of each page.
- » At the end of the page, because the paper is cut without 'Feed', Part of the last page may be cut off.

8) Custom setting

- » In addition to the seven options, you can set the options you want.
- » You can set the 'Cutting' or 'Feed' option in 'Start of Document', 'Start of Page', 'End of Page' or 'End of Document'.

You can manually set the 'Cut' or 'Feed' according to the option selected in the Detail Option.

1) Start of Document

- » This setting is applied at the start of document printing.
- » This setting is available only if the 'Option' is 'Custom Setting'.

2) Start of Page

- » This setting is applied at the start of page printing.
- » This setting is available only if the 'Option' is 'Custom Setting'.

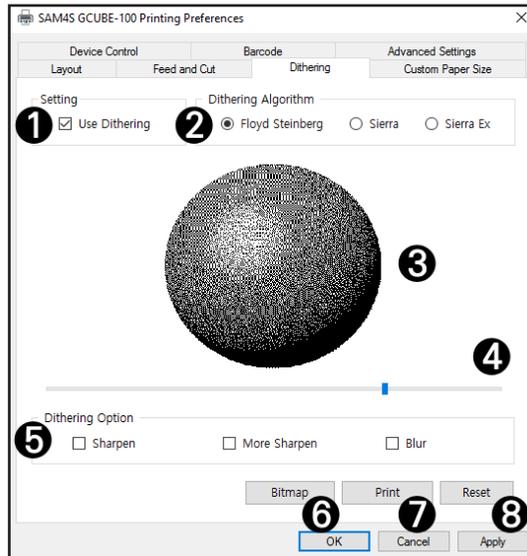
3) End of Page

- » This setting is applied at the end of the page printing.
- » 'Feed' can be set when a setting containing 'Page' and 'Feed' is selected in 'Option'.

4) End of Document

- » This setting is applied at the end of the document printing.
- » 'Feed' can be set when a setting containing 'Document' and 'Feed' is selected in 'Option'.

5.3. Dithering



SAM4S Printer Drivers provide intuitive dithering settings. The dithering setting applied when printing.

1) Setting

» You can set option for using dithering.

2) Dithering Algorithm

» Three options are available.

» Dithering quality is 'Floyd Steinberg < Sierra < Sierra Ex'. Choosing a good dithering quality option increases the image quality, But it takes more time to start printing.

3) Preview

» You can check the set options in real time.

4) Control bar

» You can adjust the brightness to the preview image. Moving the control bar from left to right darkens the Image. The settings are reflected in the output of the actual image.

5) Dithering Option

» There are four option, 'Not select', 'Sharpen', 'More Sharpen' and 'Blur'.

6) Bitmap

» You can apply the dithering setting to the image (picture, logo) you want to print.

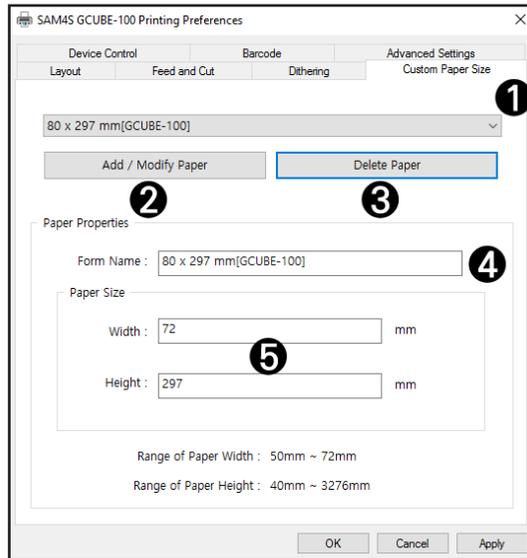
7) Print

» You can print preview image to printer.

8) Reset

» You can restore the dithering options to the defaults.

5.4. Custom Paper Size



The SAM4S Printer Drivers can add, modify and delete the paper size you want.

1) List of paper sizes

- » Nine paper sizes have been added to the printer driver for the first time.

2) Add / Modify Paper

- » Add Paper
 - In the Paper Properties list, you can enter a non-existent 'Form Name' in '4', and the width and length size within the range in '5'.
 - Then click the 'Add / Modify paper' button. Add Paper is completed.
- » Modify Paper
 - In '1', after select the paper already registered, modify the paper name or size. And click the 'Add/Modify Paper' button. The paper size has been modified.
 - The default paper size can't be modified.

3) Delete Paper

- » In '1', after select the paper you want to delete, click the 'Delete' button. When the notification window appears, click "Yes". The paper erase is complete.
- » The default paper size can't be deleted.

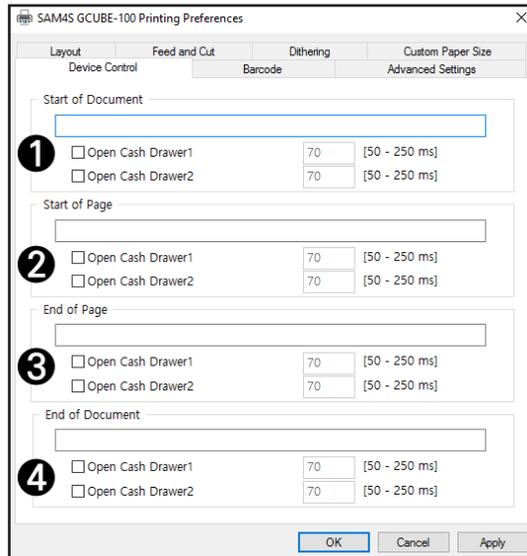
4) Form Name

- » This option indicates the name of the form.

5) Paper Size

- » This option indicates the width and length of the paper.

5.5. Device Control



The SAM4S Printer Drivers can add special command at the beginning and end of documents and pages and control the cash drawer.

Special commands must be entered in the following form:
(\ + 'x' + 2byte HEX value)
ex) – Line Feed : \x0A / – Cutting : \x1D\x56\x42\x00

1) Start of Document

- » You can set to carry out special command or cash drawer control at the start of document output.
- » If an invalid command is entered, the command is ignored.

2) Start of Page

- » Set to carry out special command or cash drawer control at the start of page output.
- » If an invalid command is entered, the command is ignored.

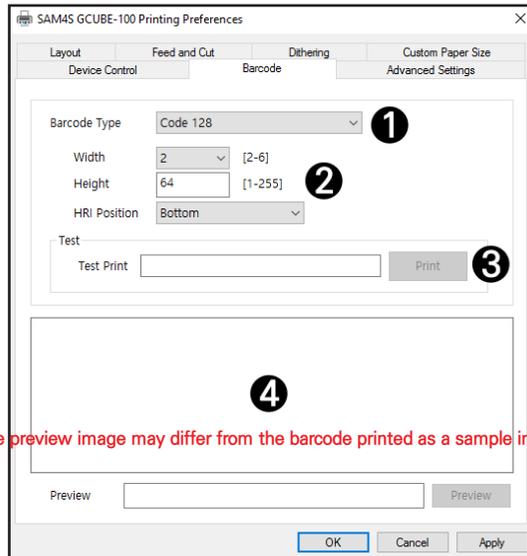
3) End of Page

- » Set to carry out special command or cash drawer control at the end of page output.
- » If an invalid command is entered, the command is ignored.

4) End of Document

- » Set to carry out special command or cash drawer control at the end of document output.
- » If an invalid command is entered, the command is ignored.

5.6. Barcode



The preview image may differ from the barcode printed as a sample image

The SAM4S printer supports a wide range of 1D barcodes and 2D barcode output. You can test barcodes with various options.

1) Font(Barcode Type)

- » The following barcodes are supported.
 - 1D Barcode : Code 39, Code 93, Code 128, ITF, Codabar, JAN8/EAN8, JAN13/EAN13, UPC-A, UPC-E
 - 2D Barcode : QR Code, PDF-417

2) Option

- » 1D Barcode
 - You can set the width and height of the barcode.
 - You can set the printing position of HRI(Human Readable Interpretation).
- » QR Code
 - You can set the model and size of the barcode.
 - You can set the Error Correction of the barcode.
- » PDF-417
 - You can set the width and height of the barcode.
 - You can set the Error Correction of the barcode.

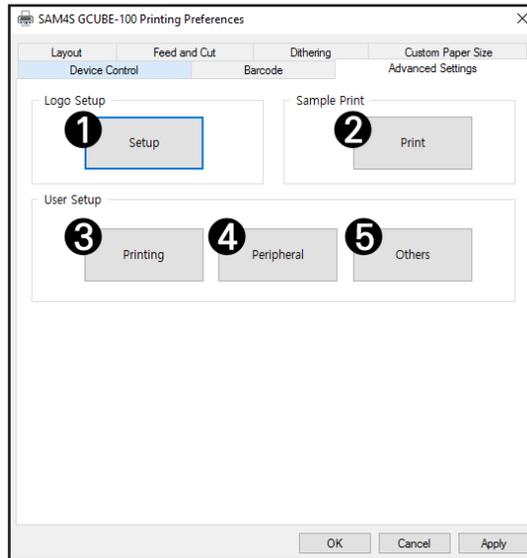
3) Test Print

- » You can print barcode data with options set in '1' and '2'.

4) Preview

- » You can preview the barcode image with the barcode type set in '1'.
- » The preview image may differ from the barcode printed as a sample image.

5.7. Advanced Settings



NOTE: Depending on the printer type, menu display and support may differ.

NOTE: You can set the advanced functions only in printers connected to a Serial or USB interface.

The SAM4S printer offers a variety of setting options such as logo and print settings.

1) Logo Setup

» You can set the top or bottom logo, or test the image.

2) Sample Print

» You can print receipts, images and samples of barcode.

3) User Setup – Printing

» You can set print-related functions such as print speed and density.

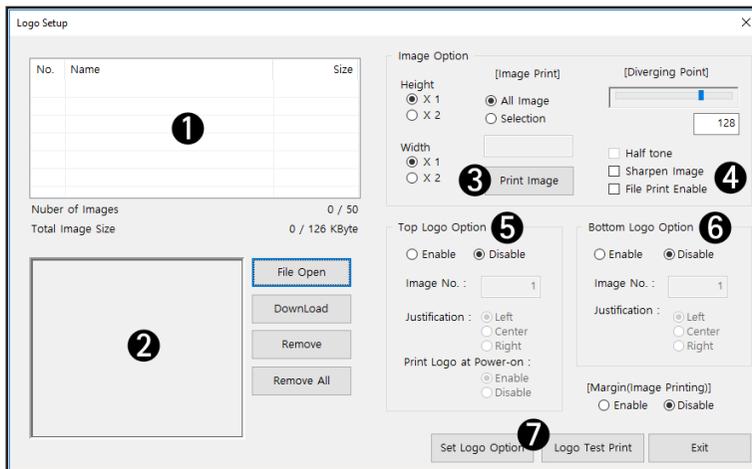
4) User Setup – Peripheral

» You can set peripheral functions such as kitchen bell and cash drawer control.

5) User Setup – Others

» You can set other features such as code page and emulation.

5.7.1. Advanced Settings (Logo Setup)



A description of the logo settings follows.

1) List of images

- » When you add an image, the file name appears in the list. Afterwards, you can save the image to the printer by clicking the 'Download' button.

2) Preview

- » You can see the images added to the list. Changes made in the dithering options are not show.

3) Print Image

- » You can print image stored in the printer by doubling the width or height.

4) Dithering options

- » You can set the Contrast, Half tone and sharpen options. After dithering option setting, Click Download button. You can confirm that it is applied.

5) Top Logo Options

- » You can set the image and justification of the top logo.

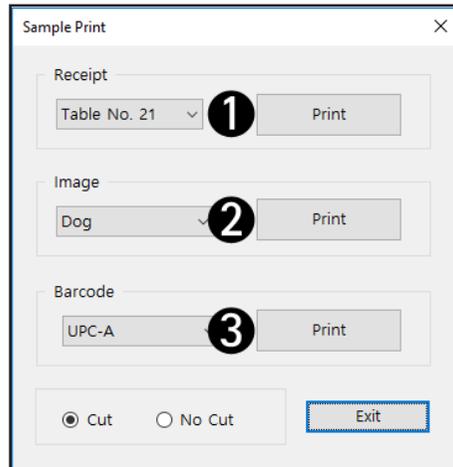
6) Bottom Logo Options

- » You can set the image and justification of the bottom logo.

7) Set Logo Option / Logo Test Print

- » After setting the above options, click the 'Set Logo Options' button to complete the setup. and, To test what has been set up, click the 'Logo Test Print' button.

5.7.2. Advanced Settings (Sample Print)



A description of sample printing follows.

1) Receipt

- » Receipt samples can be printed.
- » There are three receipt samples. If you select the cut, receipt sample will be cut.

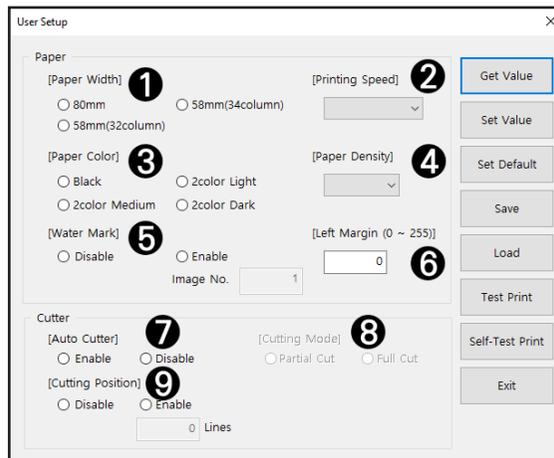
2) Image

- » Image samples can be printed.
- » There are three image samples. If you select the cut, image sample will be cut.

3) Barcode

- » Barcode samples can be printed.
- » There are 11 barcode samples. If you select the cut, barcode sample will be cut.

5.7.3. Advanced Settings (User Setup–Printing)



NOTE : Printing speed may be slow depending on paper width, type and density.

A description of the print items in the user settings is as follows.

1) Paper Width

» You can select 3inch mode(80mm) or 2inch mode(58mm).

2) Printing Speed

» You can select Printing Speed.

3) Paper Color

» You can select Paper Color. – Black or 2 color.

4) Density

» You can select the paper density. The default value is LV 2, The highest values is LV 4.

5) Water Mark

» You can select the water mark. This applies only to font printing, and the watermark setting is ignored when printing images.
You can not set the Water Mark function when Two Color mode is set.

6) Left Margin

» You can set the left margin. Up to 255 characters can be specified. (Only ELLIX40 is up to 512) It is the same as the value of 12 per one alphanumeric characters. It is the same as the value of 24 characters per korean / Chinese characters.

7) Auto Cutter

» You can select 'Auto Cut' – enabled or disabled.

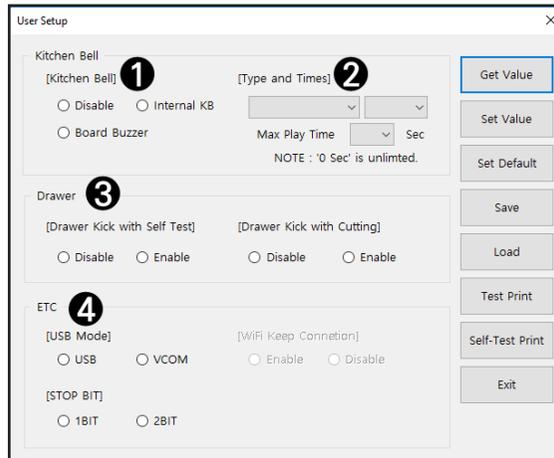
8) Cutting Mode

» You can select Cutting mode – Full cut or partial cut.

9) Cutting Position

» You can set the action that the paper is cut after it is fed by the value entered in the 'Lines'.

5.7.4. Advanced Settings (User Setup–Peripheral)



A description of the peripherals in the user settings is as follows:

1) Kitchen Bell

- » You can set the bell action using External (Internal KB) or Inner bell (Board Buzzer).
- » Since the Inner bell operates as a buzzer, the volume may be lower than the External Bell.

2) Type / Times

- » Set the Type, Times and Max Play Time of the kitchen bell.
- » If you set the Max Play Time to '0 sec', it will play to the end.

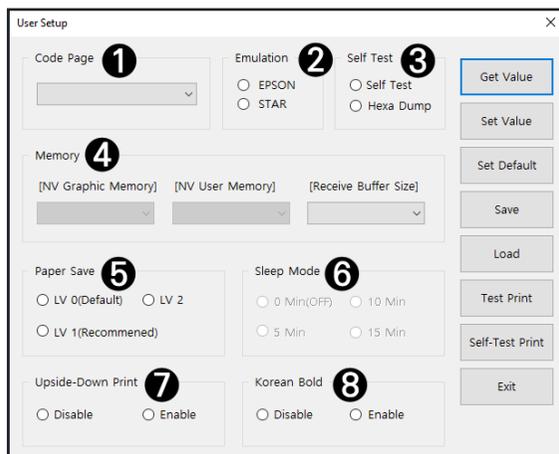
3) Drawer

- » You can set the behavior of the cash drawer.
- » In Self-Test, The cash drawer opening operation should only be activated in an emergency. We recommend setting it to "Disabled" for security.
- » You can set the cash drawer behavior in the cutting operation after printing.

4) ETC

- » You can set the operation mode of USB.
 - USB : Printer operates in Printer Class Mode. It is recognized as 'USB printing support'.
 - VCOM : Printer operates in Virtual Class Mode. It is recognized as 'COM port'.
- » You can set the stop bit related to serial communication. The default value is '1 bit'.

5.7.5. Advanced Settings (User Setup–Others)



A description of the peripherals in the user settings is as follows:

1) Code Page

» You can set up code page. But Korean/Japanese/Chinese are not changed.

2) Emulation

» You can set up emulation. We support EPSON(ESC/POS) and STAR emulation.

3) Self-Test

» You can set up Self-Test.

– Self Test : The information of the printer is printed when the power is turned on while the FEED button is pressed.

– Hexa Dump : The information of the printer is printed when the power is turned on while the FEED button is pressed. At this time, when data is transferred to the printer, it is printed as a hexadecimal value. Press the Feed button 3 times to exit.

4) Memory

» You can change the size of the built-in memory.

5) Paper Save

» The default value is 'LV0', and the maximum value is 'LV2'.

6) Sleep Mode

» You can set the printer's sleep mode. When set to '0 minutes', the sleep mode is canceled.

7) Korean Bold

» It makes bold text when printing Korean. This option can set when Korean font is built-in printer.

8) Upside-Down Print

» You can print the printer upside down. Generally, this option is used for Wall-Mount. But you can't use this option, When 'Water Mark', 'Two Color' or 'Top&Bottom logo' is selected.

CHAPTER 6.

Troubleshooting

6.1. Installation troubleshooting

6.2. Uninstallation troubleshooting

6.3. Printing troubleshooting

CHAPTER 6

Troubleshooting

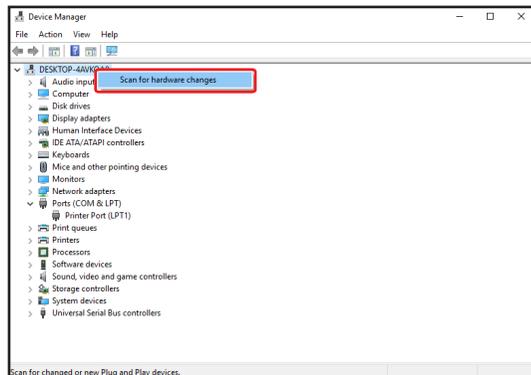
6.1. Installation troubleshooting

1. Not found a serial port.

If you don't have a serial port on your system, Installation for serial port is not possible.

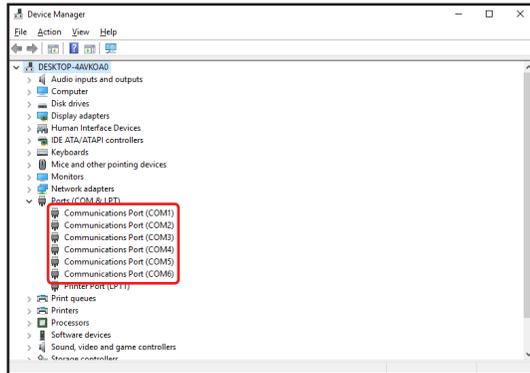
What you need to do is make sure whether system has a serial port or not from the 'Device Manager'.

1) Scanning hardware to make sure all of hardware is installed.



6.1. Installation troubleshooting

- 2) Checking 'COM (Communications) Port' on the list.



- 3) If you don't have any 'COM Port' on the list, please ask assistance to hardware engineer of your system.

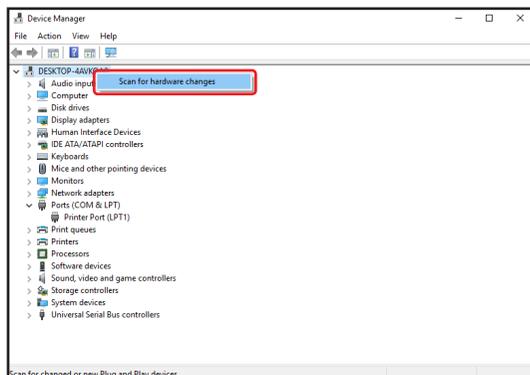
2. Not found a USB to Serial port.

If you don't have a serial port including USB to serial port on your system, Installation for serial port is not possible.

What you need to do is make sure whether system has a USB to serial port or not from the 'Device Manager'.



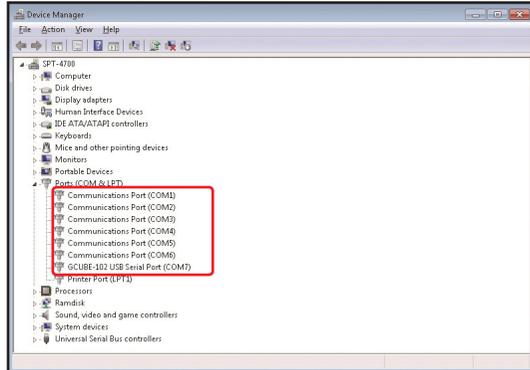
- 1) Scanning for hardware to make sure all of hardware is installed.



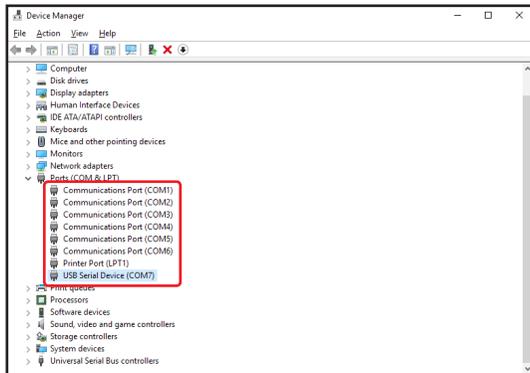
6.1. Installation troubleshooting

2) Checking 'COM (communications) Port' on the list.

- In case of Windows 7



- In case of Windows 8 / 8.1 / 10



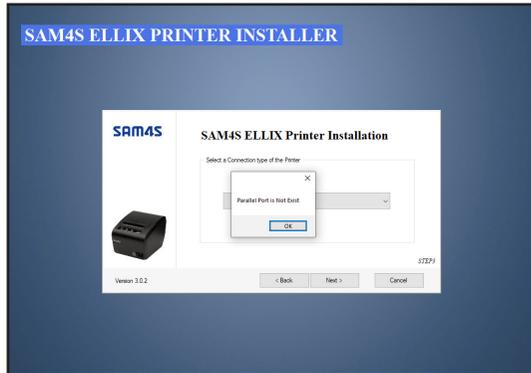
- 3) If you don't have any 'USB Serial Port' on the list, please refer 'Installing USB to serial printer' (p.20 or 22) to install an USB to Serial printer.
- 4) If you have 'USB Serial Port' on the list but the SAM4S printer installer doesn't show the port when you install a SAM4S printer, please re-boot your system to apply changes completely and try again.

6.1. Installation troubleshooting

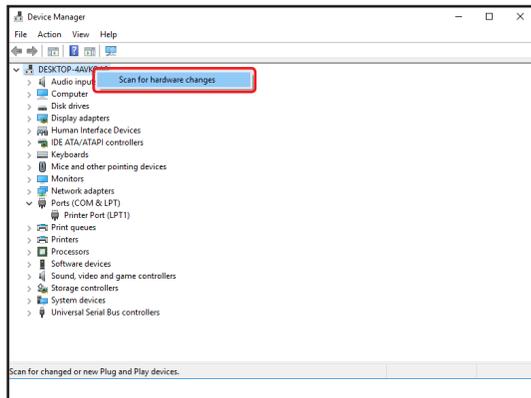
3. Not found a Parallel port.

If you don't have a parallel port on your system, Installation for parallel port is not possible.

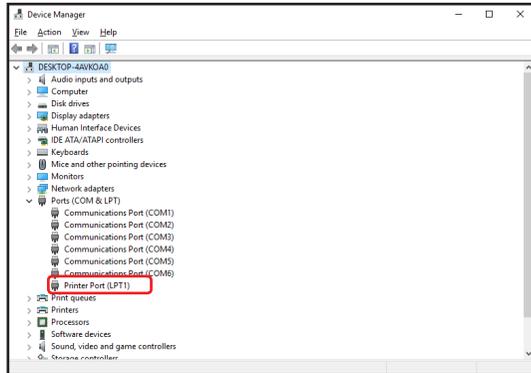
What you need to do is make sure whether system has a parallel port or not from the 'Device Manager'.



1) Scanning for hardware to make sure all of hardware is installed.



2) Checking 'LPT Port (Parallel Port)' on the list.



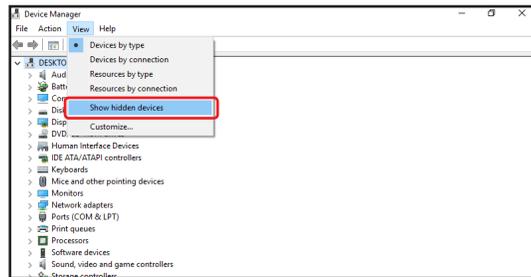
3) If you don't have any 'Printer Port' on the list, please ask assistance to hardware engineer of your system.

6.1. Installation troubleshooting

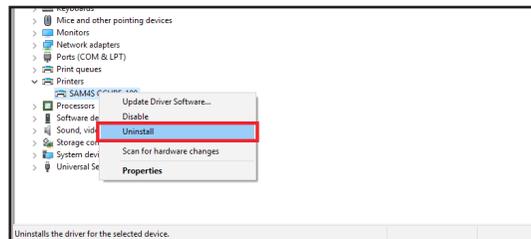
4. Installed a Windows printer driver. However, It is not shown on my computer turning ON/OFF the printer.

Solve the problem by manually removing the printer driver installed on the system.

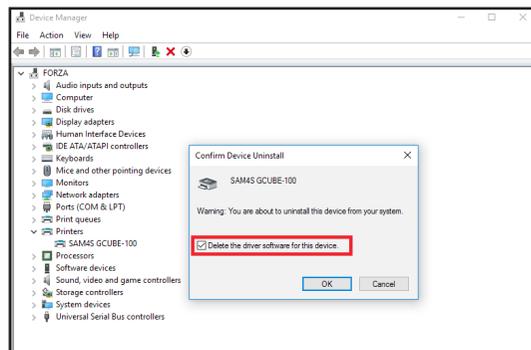
1) Click 'View' and 'Show hidden devices' on the Device Manager.



2) Uninstall the printer.



3) Check the 'Delete the driver software for this device' and proceed to remove.



4) After uninstallation, retry to install the Windows printer driver.

6.2. Uninstallation troubleshooting

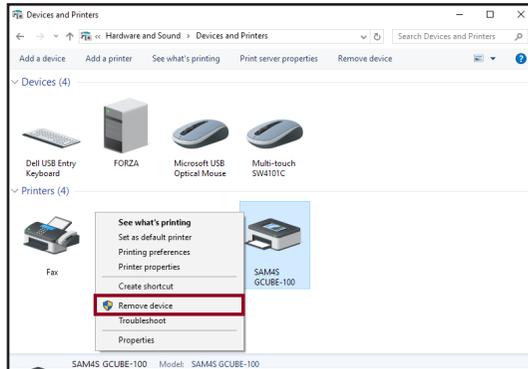
1. Unable to uninstall.

1) Make sure that the SAM4S printer is not removed from the 'Devices and Printers'.

Name of the installed SAM4S printer should be form as 'SAM4S ELLIX-xxx', 'SAM4S GIANT-xxx' or 'SAM4S GCUBE-xxx'.

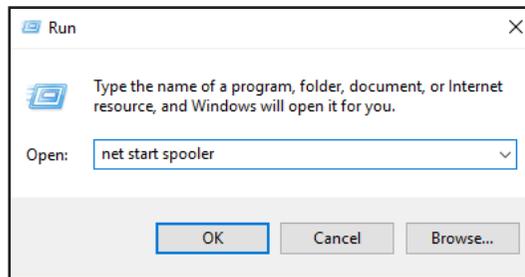
Click the right mouse button and delete the printer.

- In case of Windows 7 / 8 / 8.1 / 10
– Right-Click the printer and select 'Remove device'



- ※ If the list of 'Devices and Printers' is not shown, execute 'net start spooler' from the 'Run'.

To open 'Run' dialog, press the 'Windows Key' with 'R Key'.



6.2. Uninstallation troubleshooting

2. Uninstalling the SAM4S Printer Driver Installer.

1) Delete the installer files:

– ELLIX

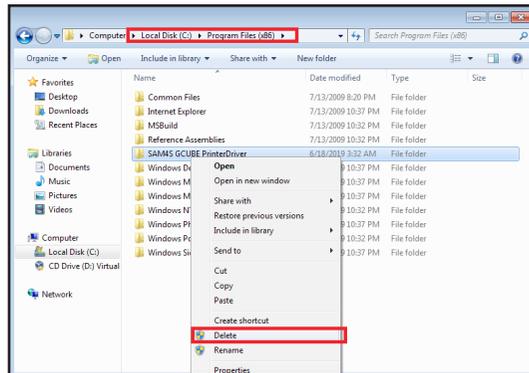
- 32bit OS → Root\Program Files\
SAM4S ELLIX Printer Driver
- 64bit OS → Root\Program Files
(x86)\SAM4S ELLIX Printer
Driver

– GIANT

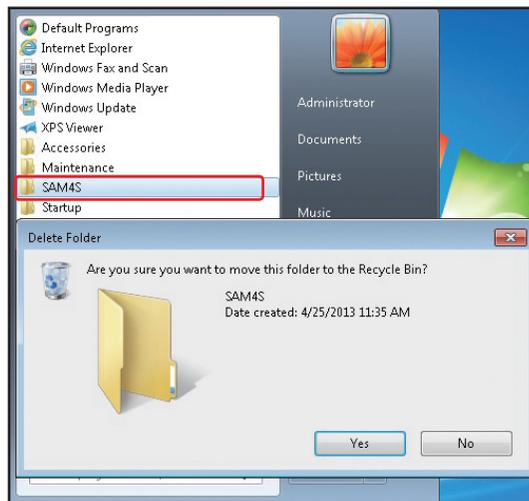
- 32bit OS → Root\Program Files\
SAM4S GIANT Printer Driver
- 64bit OS → Root\Program Files
(x86)\SAM4S GIANT Printer
Driver

– Gcube

- 32bit OS → Root\Program Files\
SAM4S Gcube Printer Driver
- 64bit OS → Root\Program Files
(x86)\SAM4S Gcube Printer
Driver



2) Delete the shortcut of the installer.

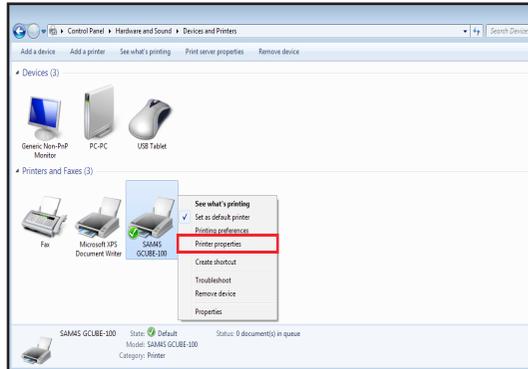


6.3. Printing troubleshooting

1. The document is printed, but the paper is not cut properly.

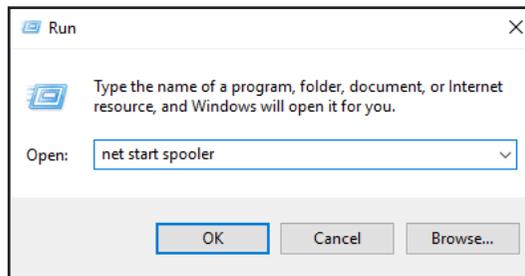
Click the 'Printer properties' and check the 'Print Processor'.

- In case of Windows 7 / 8 / 8.1 / 10
– Click the 'Printer properties'



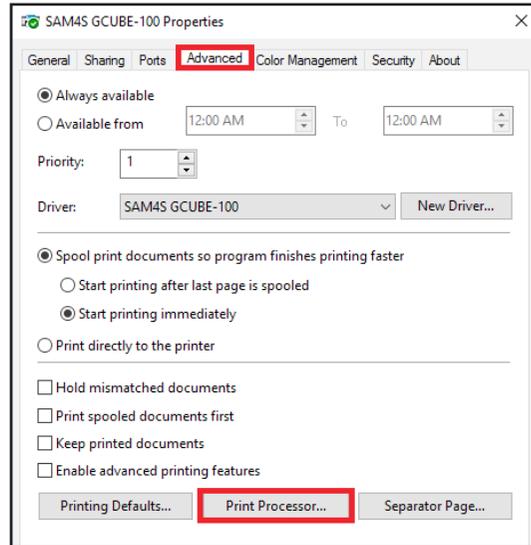
✘ If the list of 'Devices and Printers' is not shown, execute 'net start spooler' from the 'Run'.

To open 'Run' dialog, press the 'Windows Key' with 'R Key'.

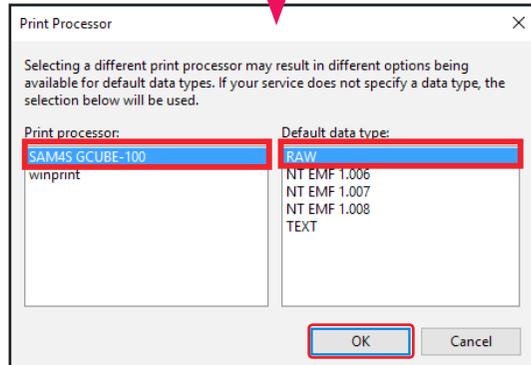
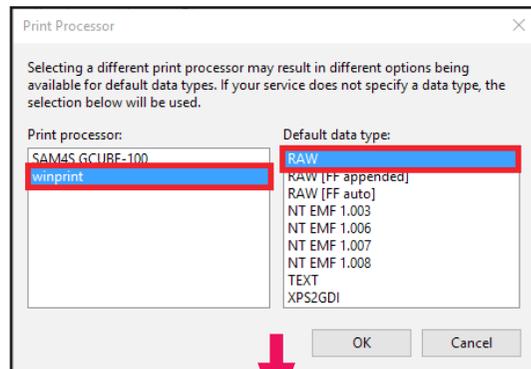


6.3. Printing troubleshooting

2. Verifying properties that are 'Driver' and 'Print Processor' of installed printer from the 'Advance' tap.



If the Print Processor is assigning the 'winprint', select the 'SAM4S GCUBE(ELLIX/GIANT)-xxx'.



3. After that, go to the 'General' tab and click the 'Print Test Page' button. Make sure the printer prints normally.

SAM4S Printer Series

Windows Driver & Installer

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