

CITIZEN

Windows Driver Guide

Installer version

For Ver3.5xx

CITIZEN SYSTEMS JAPAN CO., LTD.

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Revision history (3.xx/2.xx)

Date	Version	Details
09/06/25	V2.00	Issued
09/10/29	V2.01	Added CT-S601
09/12/15	V2.02	Windows7 is supported Installer is changed. (Status function is supported on all the drivers.) Explanation for CITIZEN COM port is added. Explanation for Additional driver function is added.
10/5/20	V2.02 (Modified)	CT-S651/851 are added.
10/5/27	V2.23	Version number is changed to same version as driver itself. Status monitor is updated to Ver2.2.4.0. Online/Offline can be detected correctly. USB data transfer time out value of language monitor is changed to 8 seconds to avoid the communication error caused by bi-directional communication via USB on Windows7. (32-bit)/(64-bit) are added to File Description of DLLs. Windows7 device icon for CT-S60,651,801 and 851 are added.
10/11/25	V.2.24	Ethernet is added for supported interface POS Printer Utility is updated to Ver1.8.3 (Wrong setting values are corrected.) Status Monitor Library is updated to Ver1.3.1 (The time to get status is shortened.)
11/4/13	V2.25/1.660	CT-S310II driver is added. 2-dimensional barcode fonts are added. "Label/BM" function is changed to "Paper Media" function. "Cutter Mode" is refined to support Label/BM paper cutter mode. "Paper Feed" function is newly added for the adjustment of paper feeding before the cut. File sender garbage character problem is fixed. Changes to show/hide buttons and tabs are added. Status monitor is updated to Ver2.2.5.2 for minor changes. POS Printer Utility is updated to 2.0 and is excluded from driver installer. Document for Ver1.660 is integrated.
12/6/15		Explanation about TCP/IP port is added.
13/3/1	V2.27/1.680	Windows8 is supported. Version dialog function is added. The problem of cutting in the middle of watermark is fixed. The problem of reprint and coupon print from client PC to shared printer is fixed. Status monitor is updated to 2.2.5.3. Win8/Win Server2012 are supported. Log file function is improved. Setting to accept/reject Offline status is added. Setting to enable/disable notification of printing completion is added. Status inquiry command sequence for each interface except parallel is changed. Unit of status monitor setting is changed from driver base to model base. Driver port setting tool is updated.
13/7/22	V2.28/V1.690	Installation failure on non-English Windows is fixed. Problem to get printer status with LAN/WLAN is fixed. Problem of PMU2xxxIII presenter status is fixed. "X" mark is removed from the icon for software un-installation list
14/1/21	V2.281/1.691	Support of CT-S281BD is added.
15/3/9	V3.1xx/V2.28x/V1.69x	Ver 3.xx driver is added. CT-S251/ CT-S8xx (II)/CT-S6xx (II) are added. CT-S2000 is removed from target OS.
15/08/20	V3.200	Windows10 is supported. 1.xx/2xx drivers are integrated to 3.xx by having function to enable/disable "Driver Advanced Functions".
16/2/12		The base of explanation is changed Windows7 from Windows Vista. Explanation of CITIZEN TCP/IP Port Monitor is added.
17/3/1	V3.3.00	Installer is improved to have less trouble during installing. Stream of installation is improved. Time for installation is shorter and file size is smaller. Related tool is installed/uninstalled together with the driver. Even printer is connected via USB, final installation can be done by power recycle of printer. TCP/IP port monitor installed together. Status function for LAN interface is improved not to have offline status easily. Driver itself has function of settings like port time out which was done by external tool. Added CT-D150/151/E351/651 support New standard is applied for CT-D150/151/S351/651 page size.
18/7/17	V3.4.0.0	There is no change in the driver body. The status acquisition method by SNMP can be selected. Improved handling when Bluetooth connection is broken. The installation procedure has been slightly improved
18/12/28		Added CT-S751 support.
19/3/15	V3.5.0.0	Added CT-S4500 ETW is implemented for deeper analysis at the trouble. Descriptions about 1.6 driver are deleted.

Caution

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- (4) Regardless of article (3), we cannot be responsible for any damages/influences caused using this driver.
- (5) If you do not agree any of above, you are not allowed to use the driver.

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1. Operating systems

Our drivers are designed to work on any of following operating systems.

Microsoft Windows XP

Microsoft Windows Vista

Microsoft Windows 7

Microsoft Windows 8, 8.1

Microsoft Windows 10

Derived OS from the above such as Server OS

2. Supported and interfaces

Supported interfaces are as follows.

Serial / CITIZEN COM / COM generated by Bluetooth SPP connection

Parallel (LPT)

USB

USB Virtual COM

LAN or Wireless LAN / CITIZEN TCP/IP

(This document does not cover TCP/IP port driver. For the details of TCP/IP port installation, refer to separate document "CITIZEN TCP/IP Port manual".)

Caution

USB Virtual COM driver

If you use CT-D150/151/E351/651/S251/281/310/310II/601(II)/651(II)/801(II)/851(II)/751/2000/4000/4500 in USB Virtual COM mode, it is necessary to install USB virtual COM driver.

CITIZEN COM Port Monitor

If you use serial interface, use "CITIZEN COM Port Monitor" to get the printer status.

CITIZEN TCP/IP Port Monitor

If you use LAN or wireless LAN interface, use "CITIZEN TCP/IP Port Monitor" to get the printer status.

If multiple PCs connect to a printer through LAN or wireless LAN and one of the PC is turned off without terminating LAN connection, the printer will check the communication between the PC and the printer and then terminate the LAN connection. During checking the communication, printer stops any communication with other PCs. (Max. 180 sec.)

3. Installation and uninstallation of the driver

These instructions use installation of CITIZEN CT-S801II driver to Windows 7 as the example operating system (OS). Depending on the OS, there are little differences.

This installation procedure assumes that the printer connected to the PC is not turned on before installing the driver.

Please uninstall the older drivers prior to the installation.

Avoid installing old version of driver after installation of driver of this version.

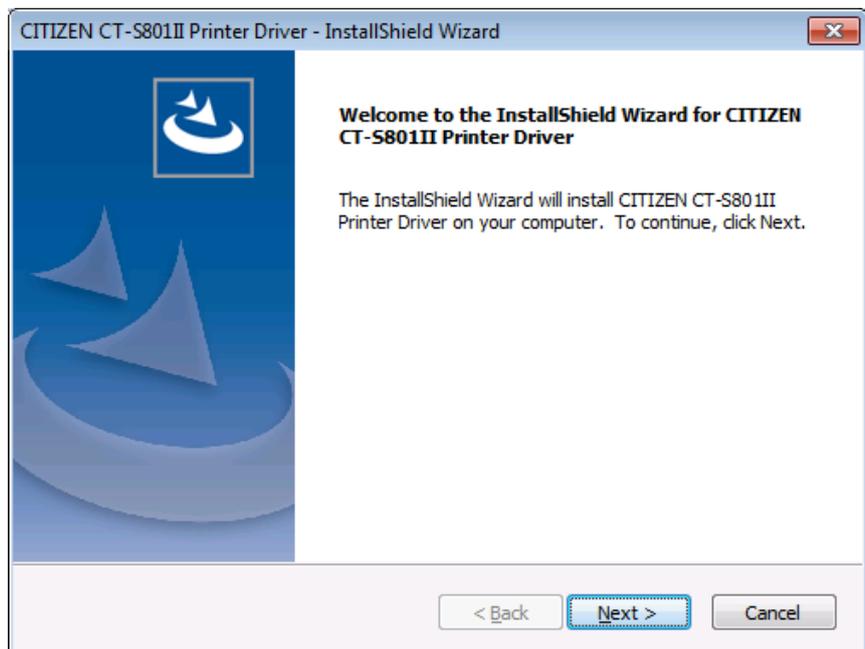
3.1 Driver installation

This installation software installs printer driver and the tools automatically.

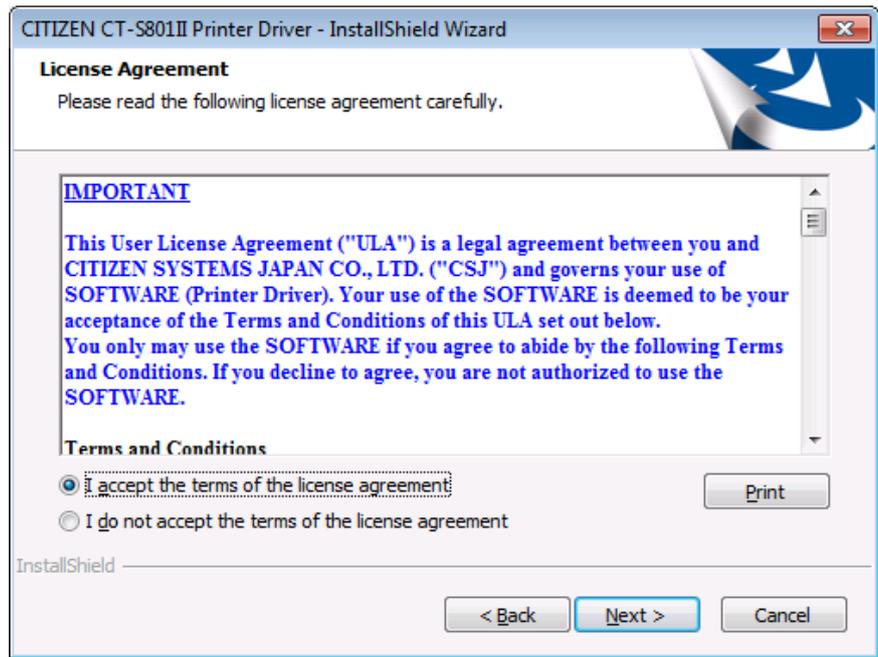
Run installer "cts801ii_lm_v3000.exe".

Then "User Account Control" dialogue shows up. Please press "Continue".

Press "Next".

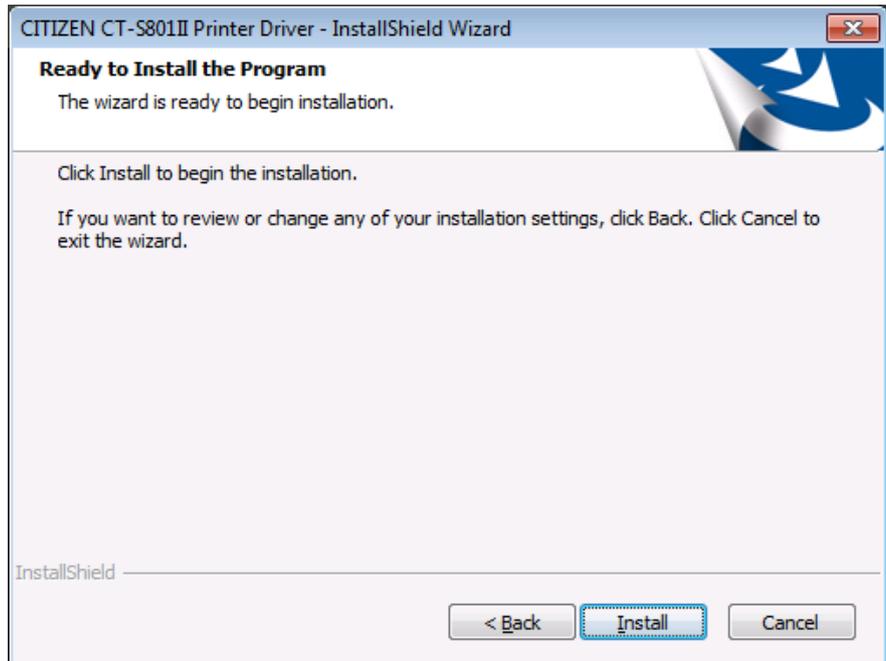


If you can accept, choose "I accept the terms of the license agreement" and press "Next".



Press "Install" here.

Then necessary software will be installed sequentially.



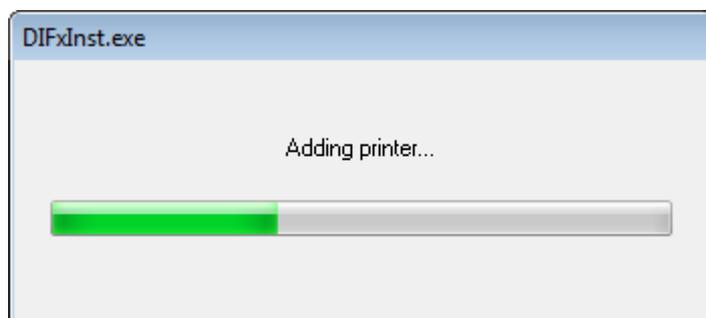
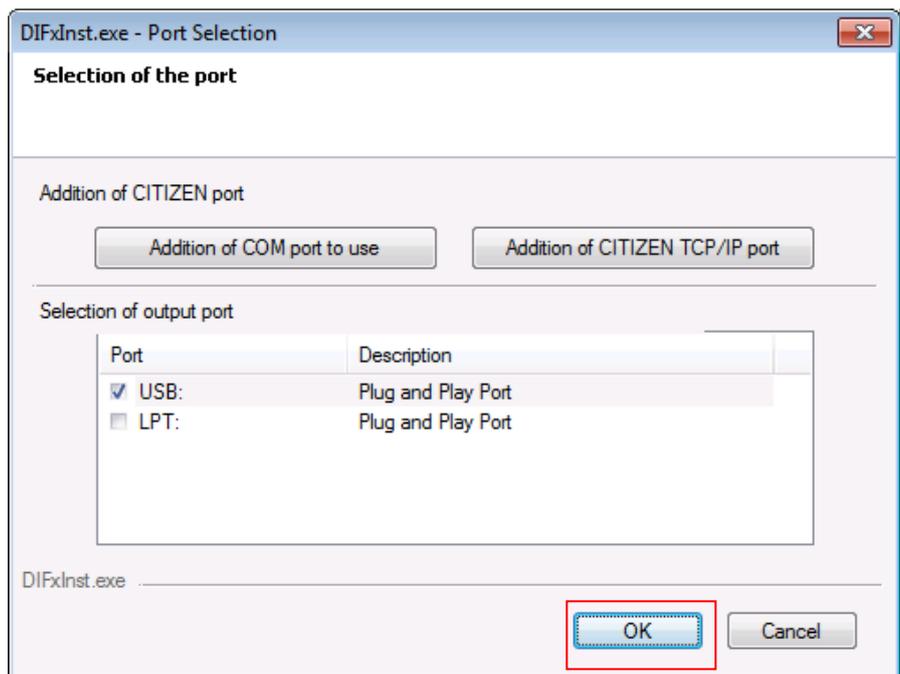
Choose the interface for the printer.

* If USB or LPT (Plug & Play Port) is chosen, driver installation will be completed after finishing this software and connect printer to the PC. Please refer to Section 3.2 "Connecting printer and PC"

* If you use COM port, press "Addition of COM port to use" to add CITIZEN COM port. Please refer to section 3.4 CITIZEN COM port for the details.

* If you use LAN or WLAN port, install CITIZEN TCP/IP Port Monitor in advance. Then you can press Addition of CITIZEN TCP/IP port here.

Driver files are under installation.

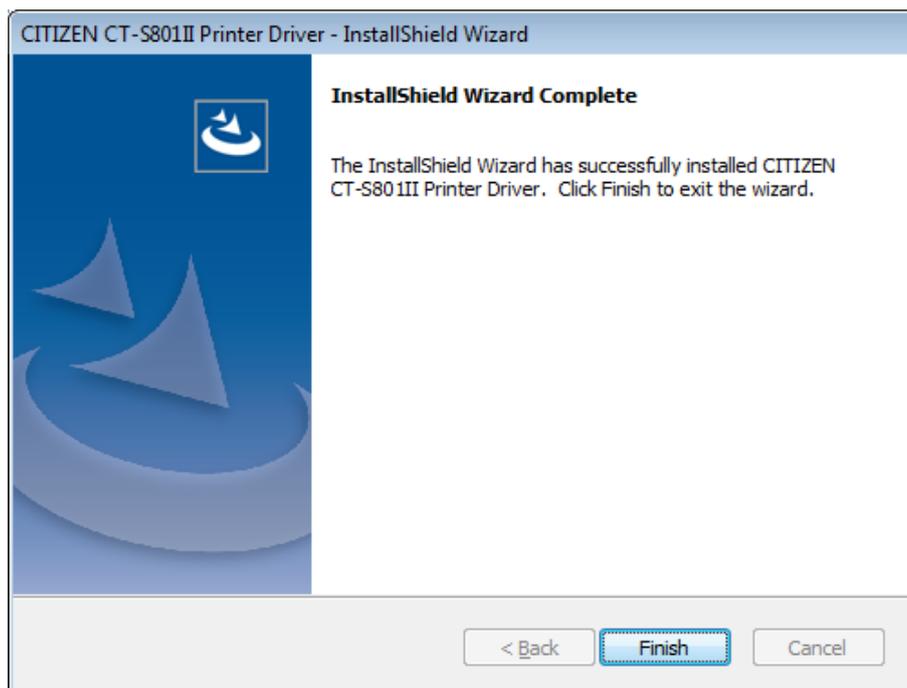


The message shown right shows up. Please choose "Install" to go forward.

* Other OSs may show different message. In any case, our driver does not harm your PC. Please go ahead.

* If selected port is non-Plug & Play port, this screen may be shown twice. In that case, please choose "Install".

When all the installation steps are finished, the right message will be shown. The driver and software installation is finished. Press "Finish".



If USB or LPT is chosen as port, please refer to next section 3.2 "Connecting printer and PC".

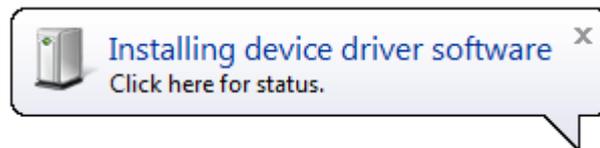
3.2 Connecting printer and PC

If the interface between printer and PC is USB or LPT, it is necessary to connect the printer and PC physically by cable and have each other recognized mutually.

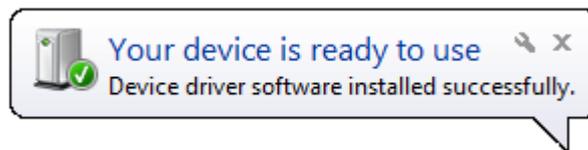
(This installation procedure assumes that the printer connected to the PC is not turned on before installing the driver, but if you connect the USB or parallel (LPT) interface to the PC and install it with the power on, "Thermal Printer" icon will remain on the screen, so please turn the printer off and then on again.)

After connecting the printer and the PC, turn the printer ON.

Then the printer is automatically detected, and driver installation starts.



After a while, the driver installation is completed with the message in right picture.

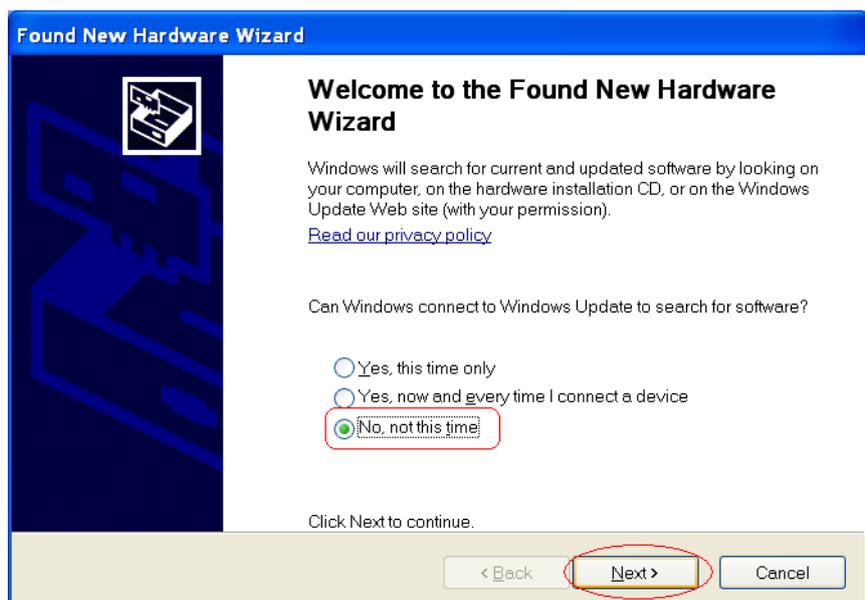


* Messages and step are different on Windows XP.

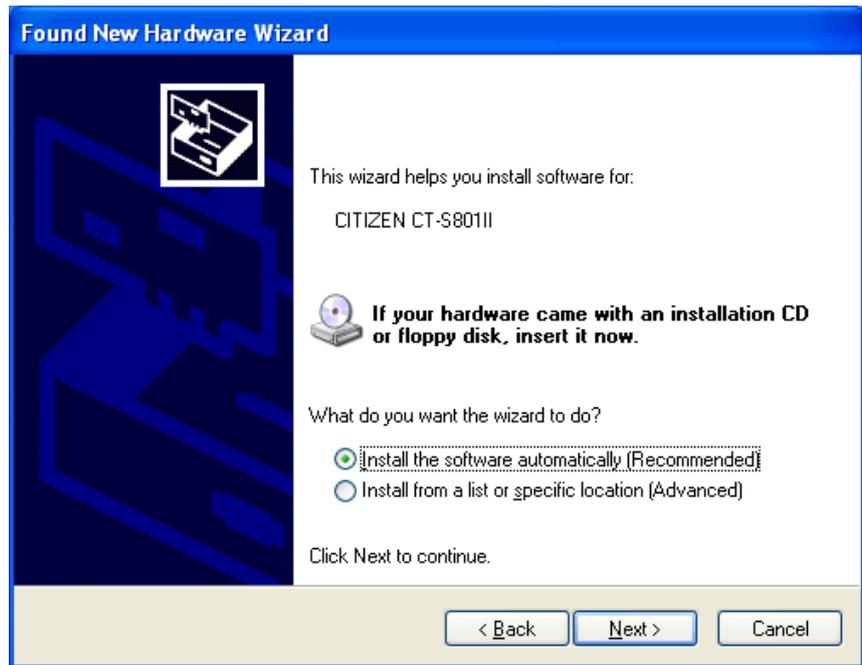
After connecting the printer and the PC, turn the printer ON.

If the driver does not have digital signature, the message in right picture show up.

For the question about Windows Update, choose, "No, not this time" and press "Next".



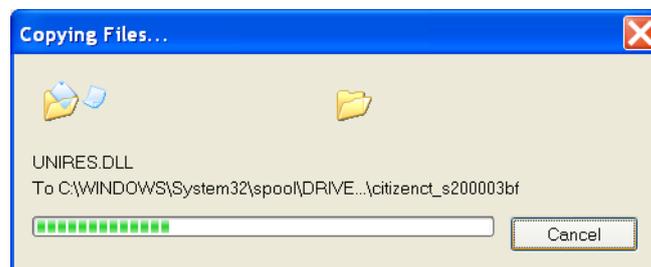
Choose "Install the software automatically (Recommended)" and press "Next".



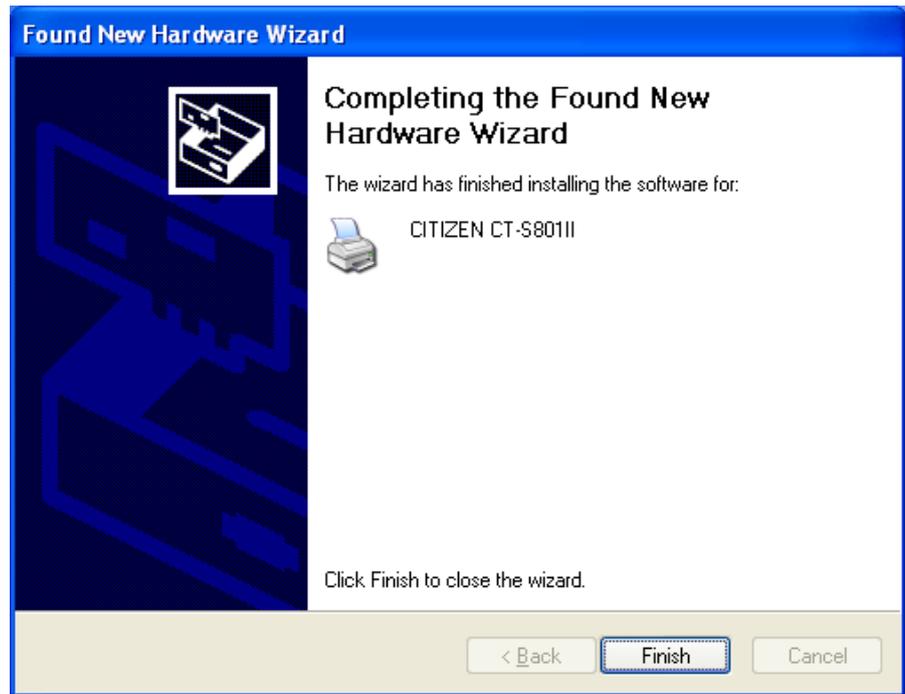
If printer driver does not have digital signature, the message like shown right shows up. As our driver does not harm the PC, please choose "Continue Anyway".



Driver files are under being copied to system folder.

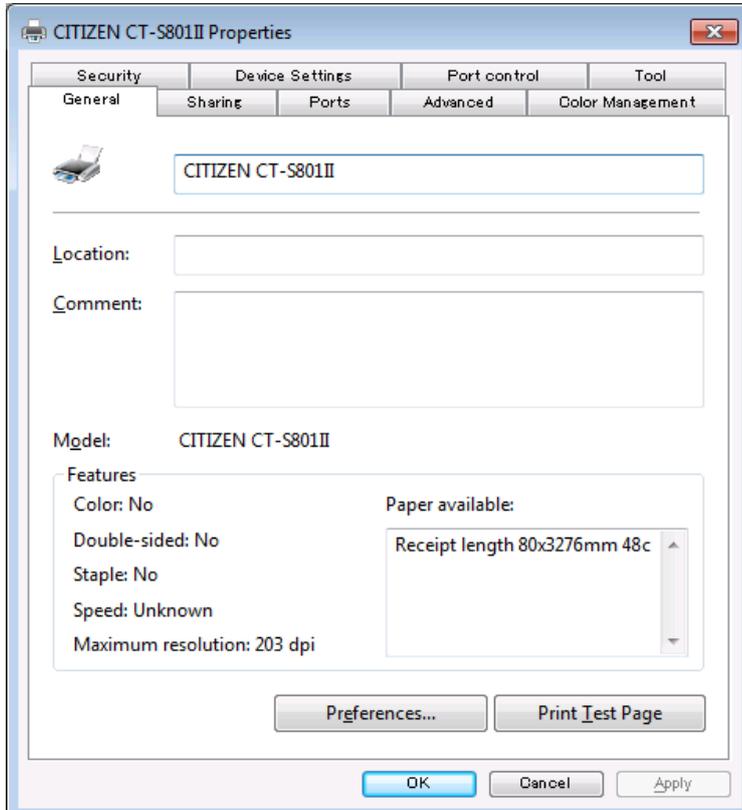


Driver installation is finished. Press "Finish".



***** Caution to use with PC of Windows8 or later *****

Printing only right after the installation may not work at all. To avoid the trouble, reboot PC after the installation or show the dialogue below once prior to the actual printing.

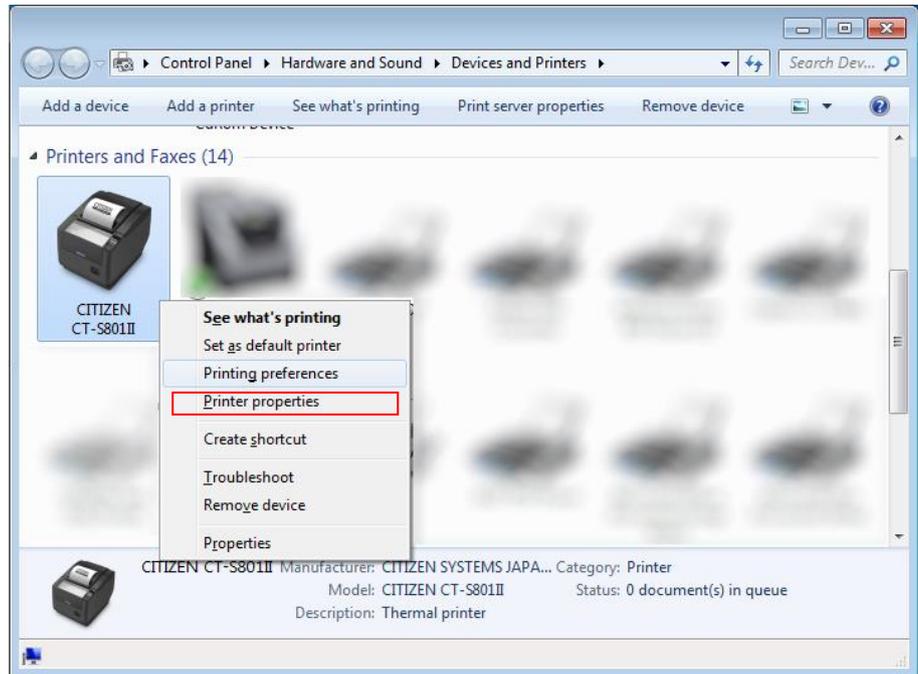


Once this is done, there is no such trouble at all and no additional action is required after that.

3.3 Serial Interface

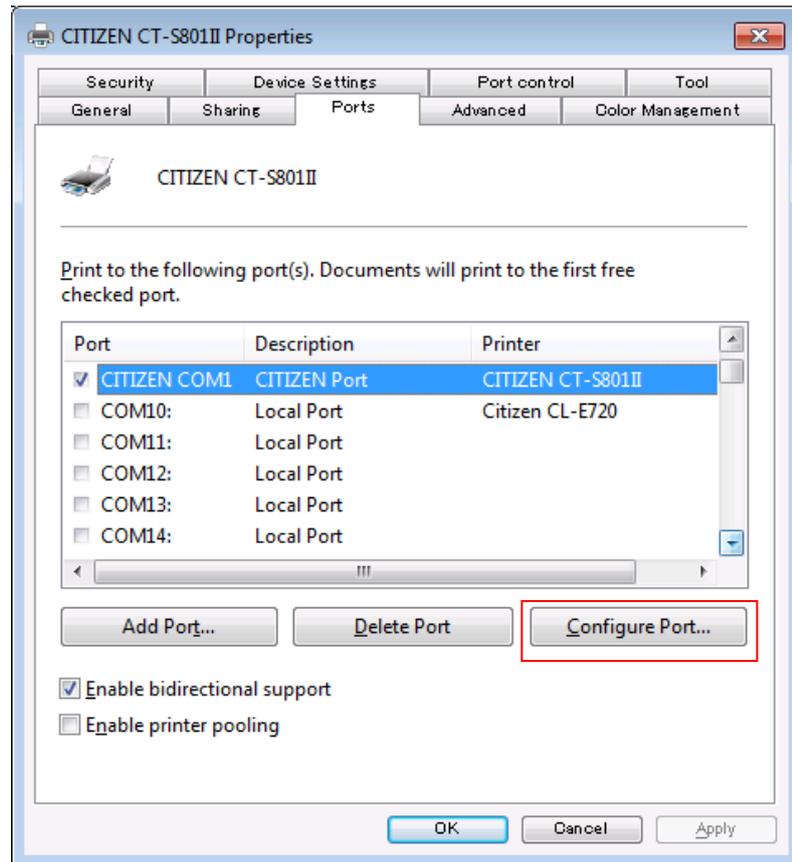
If serial interface port (COM1, COM2....) is chosen for the interface to the printer, it is necessary to have same setting between printer side and PC serial port setting. Serial port setting for PC side is described here. For the printer side setting, please refer to DIP switch setting or memory switch setting in the User's manual of each model.

On Windows 7 or later, right-click at printer icon and "Printer Properties" from the drop-down menu.



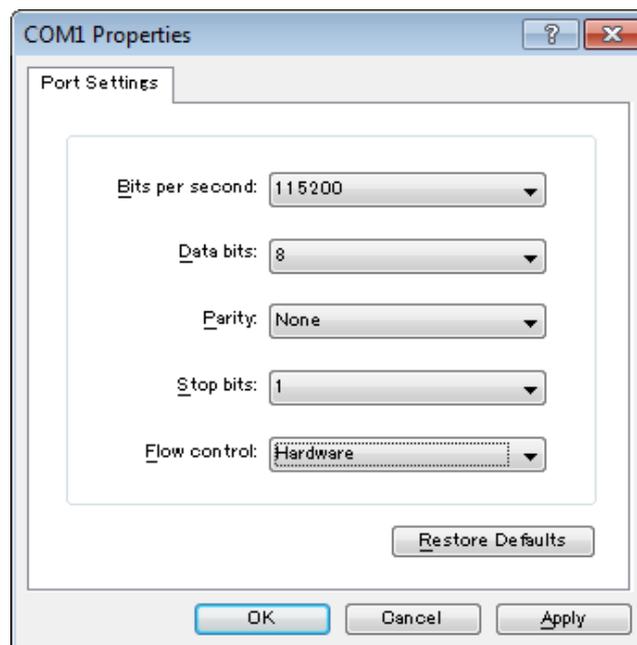
By choosing "Ports" tab on printer properties, the port for printer driver can be changed.

To change serial port setting, press "Configure Port"



Please change the setting according to the serial port condition of printer and press "Apply".

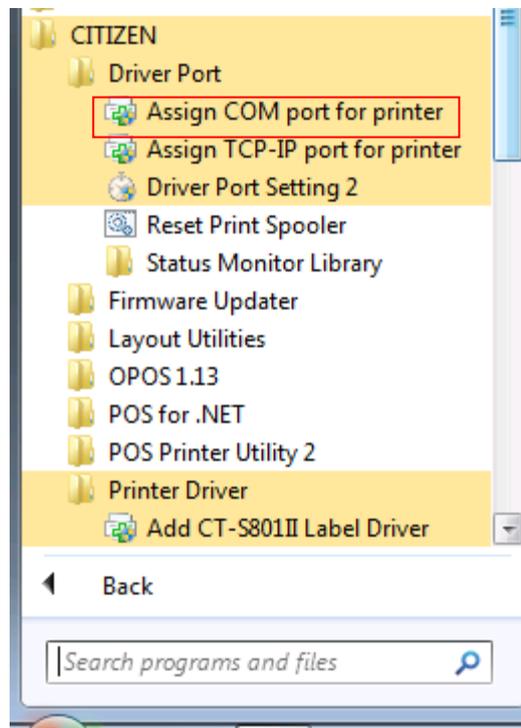
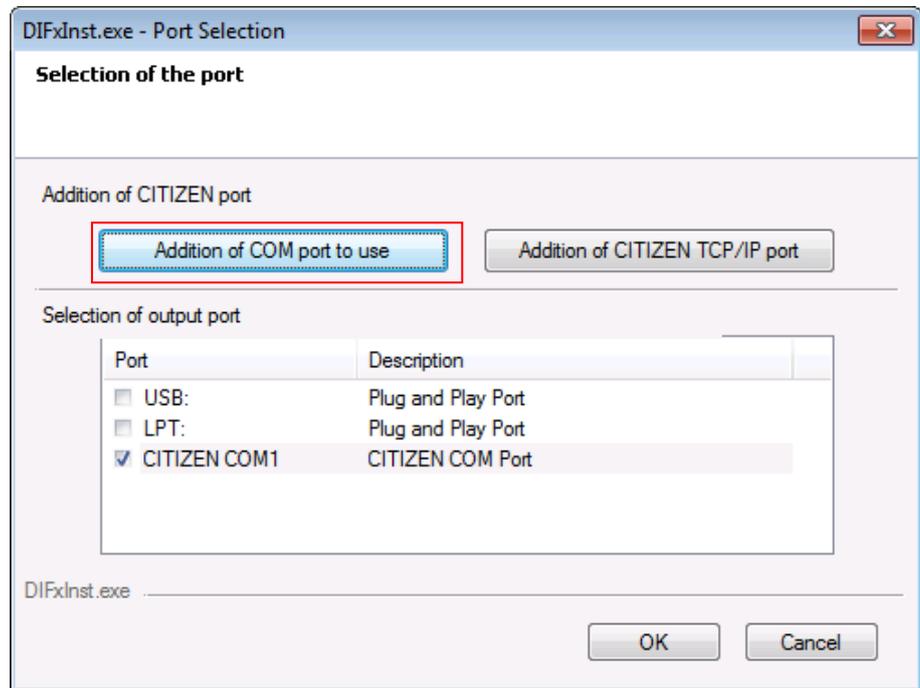
Serial port setting is done.



3.4 CITIZEN COM PORT

To use status function of the driver through serial interface, it is necessary to create CITIZEN COM port. It is possible to create CITIZEN COM Port by assigning existing serial port in following steps.

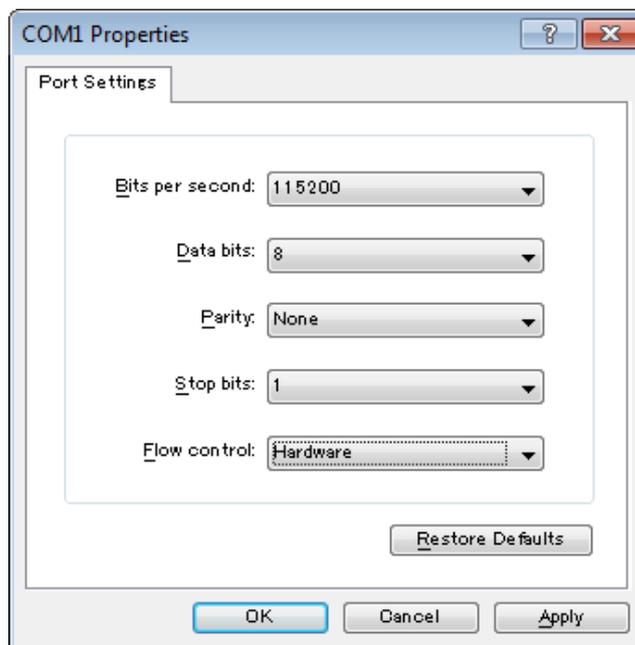
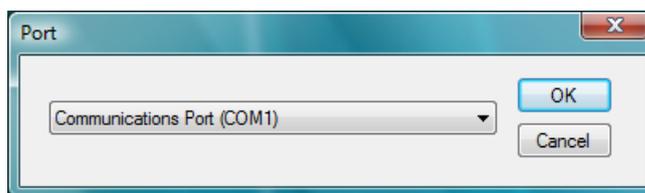
As shown in the right picture, press “Addition of COM port tor use” button or on the Start menu, choose “CITIZEN” – “Driver Port” – “Assign COM port for printer”



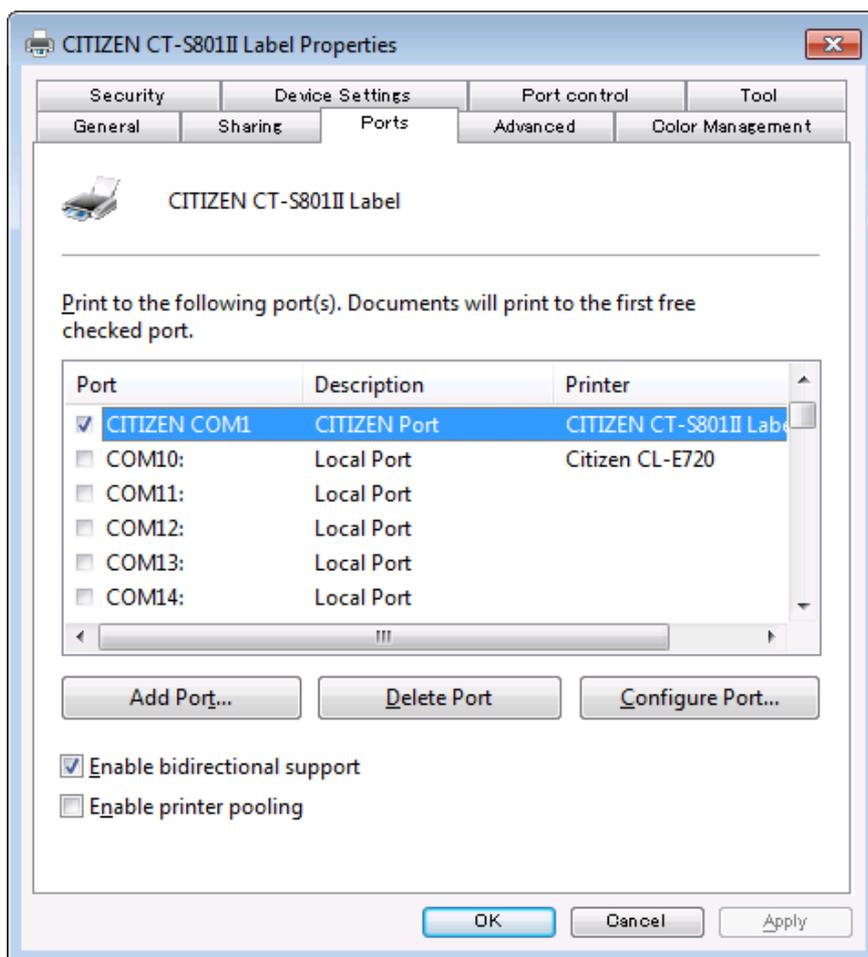
Choose the existing serial port to assign to CITIZEN COM port.

** Virtual COM port can be used same way as standard COM Port.

Set the details of port for serial communication condition accordingly and press "OK".



Port is created as per the right picture.



* If status function is used through normal serial port without choosing CITIZEN COM, there could be trouble of PC freeze by waiting for status data from printer for about 30 seconds.

3.5 Bluetooth

Windows treats Bluetooth as a serial port (virtual COM port).

There are some differences from the driver installation procedure on a normal serial port:

- A) Bluetooth pairing between PC and printer in advance
- B) Checking COM port number assigned to Bluetooth printer in advance
- C) Selecting confirmed COM port in the printer driver installation procedure

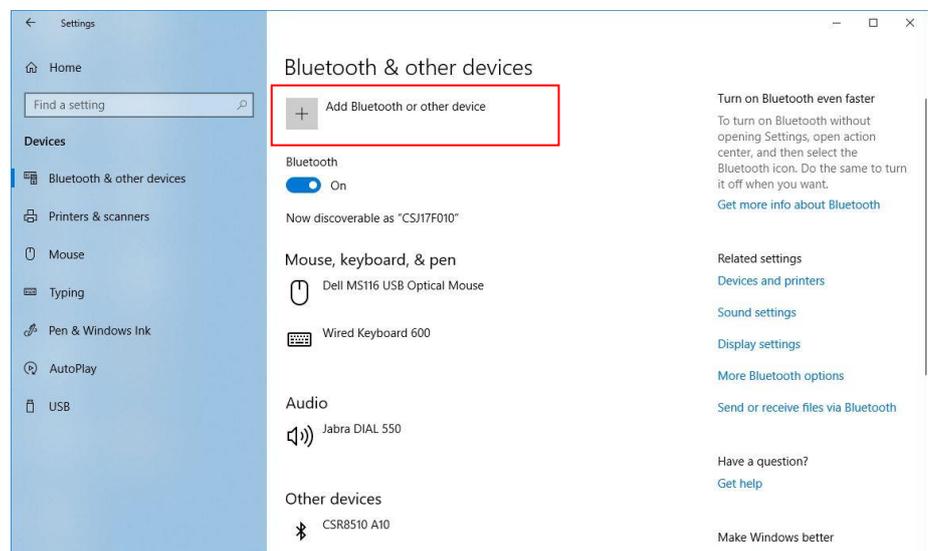
The different parts are described below.

A) Bluetooth pairing between PC and printer in advance

Before using Bluetooth devices, pairing is required.

The following explains the pairing procedure on Windows 10.

Go to "Settings"-> "Devices" and open the "Bluetooth & other devices" screen. When the screen on the right appears, select "Add Bluetooth or other device".



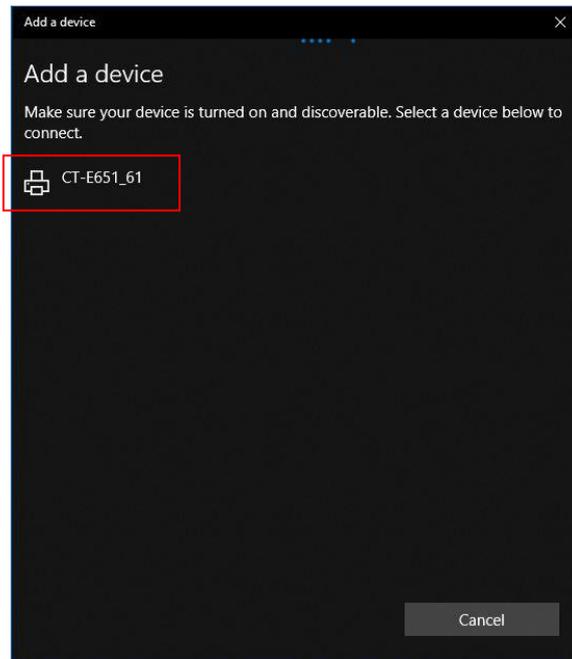
The screen on the right will appear. Select "Bluetooth".



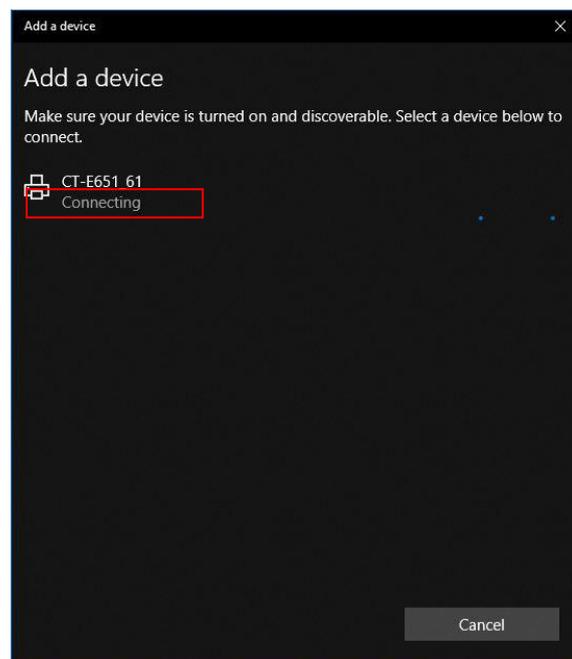
The device found by Bluetooth search will be displayed. When the printer to be used is displayed, select it.

(If you have a model with an older Bluetooth module, you will be asked to enter a PIN code here.

The PIN code is the last 4 digits of the Bluetooth BD address. Please confirm the BD address in advance by self-printing.)

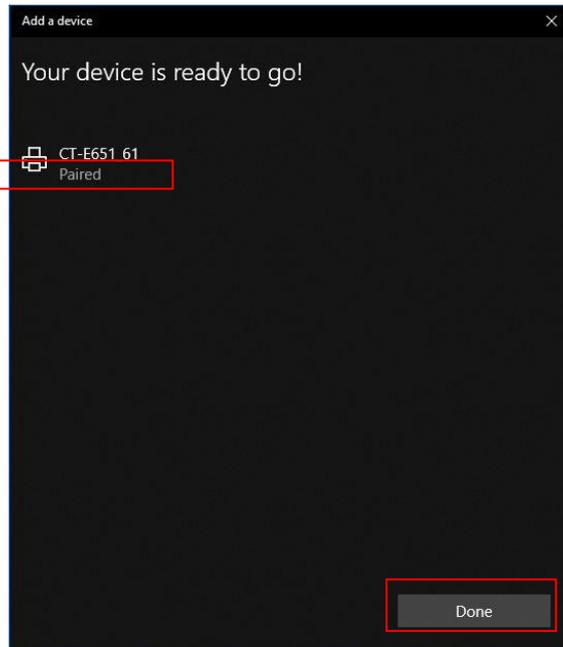


Then "connecting" is shown.



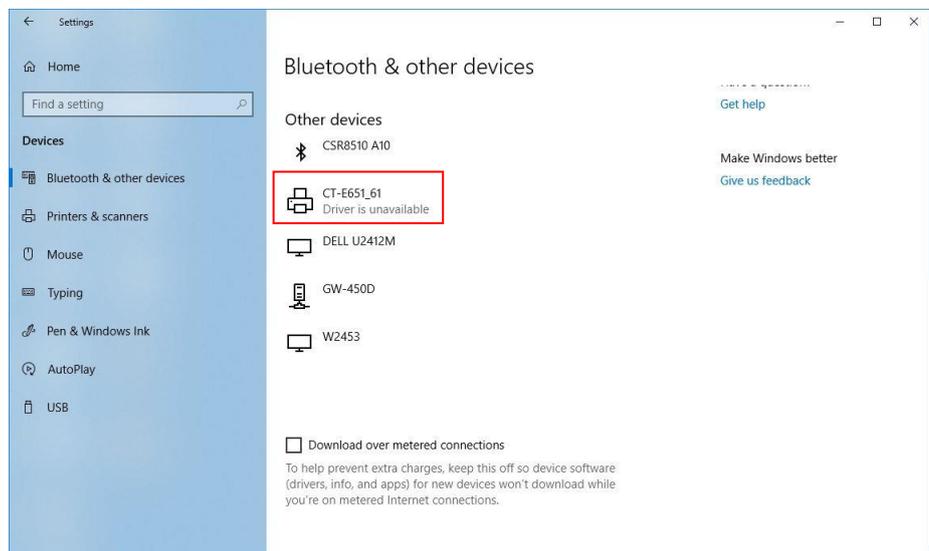
"Paired" is displayed.
(Some models require manual pairing.)

Press the "Done" button.



Return to the "Bluetooth and other devices" screen, and check that the selected printer is displayed in "Other devices"

The message "Driver is unavailable" is displayed.

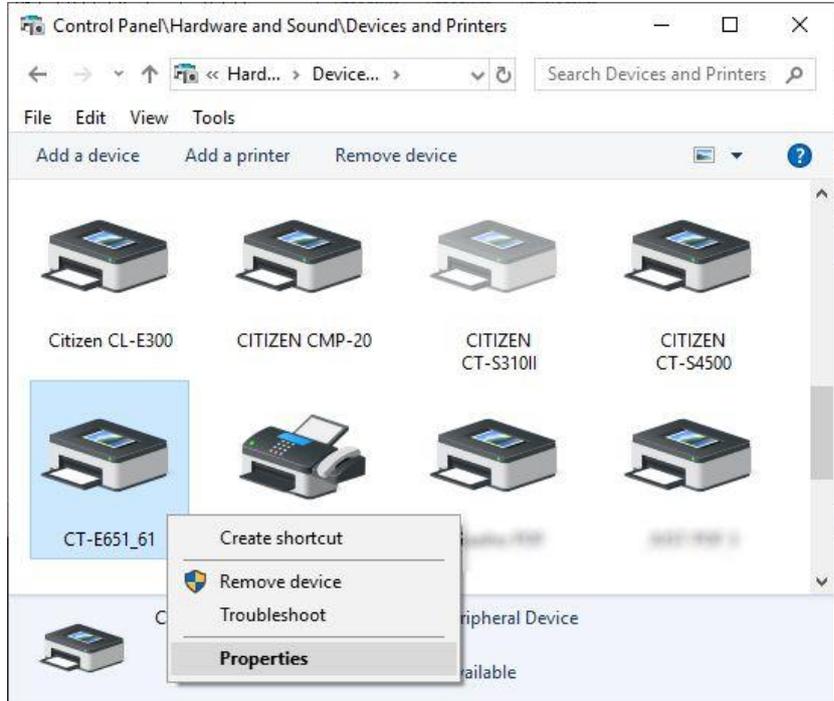


A) Check the COM port number assigned to the printer's Bluetooth

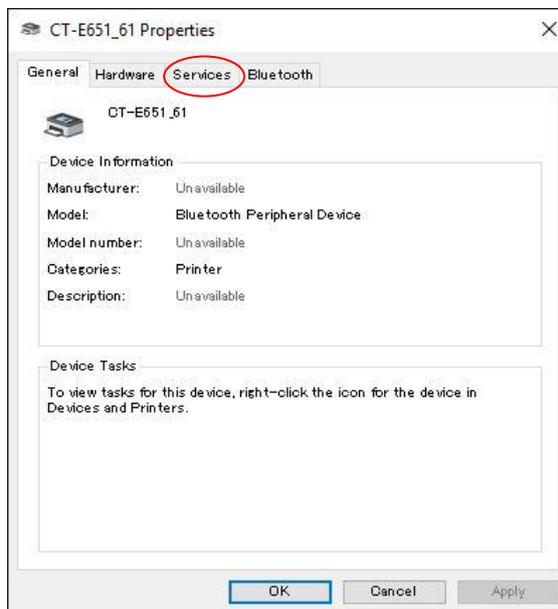
Since Bluetooth is treated as a COM port on Windows, you need to specify the COM port number assigned to Bluetooth during the driver installation process, and you need to verify that COM port number before you start installing the driver.

The following are the steps to follow.

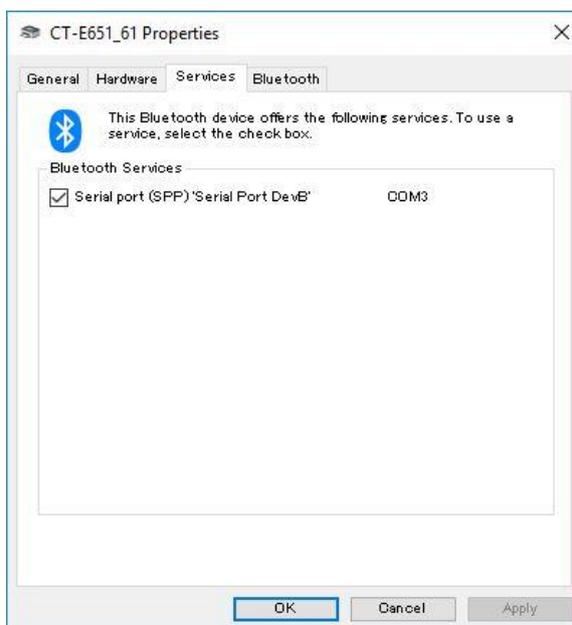
Right-click on the icon in the "Devices and Printers" screen and select "Properties". (The icon shown here represents the printer's Bluetooth function only. In order to use the printer's functions, you need to install the printer's driver.)



When the screen on the right comes up, select the "Services" tag.



You will see a screen like the one on the right, and in this example, you can confirm that "COM3" is assigned.

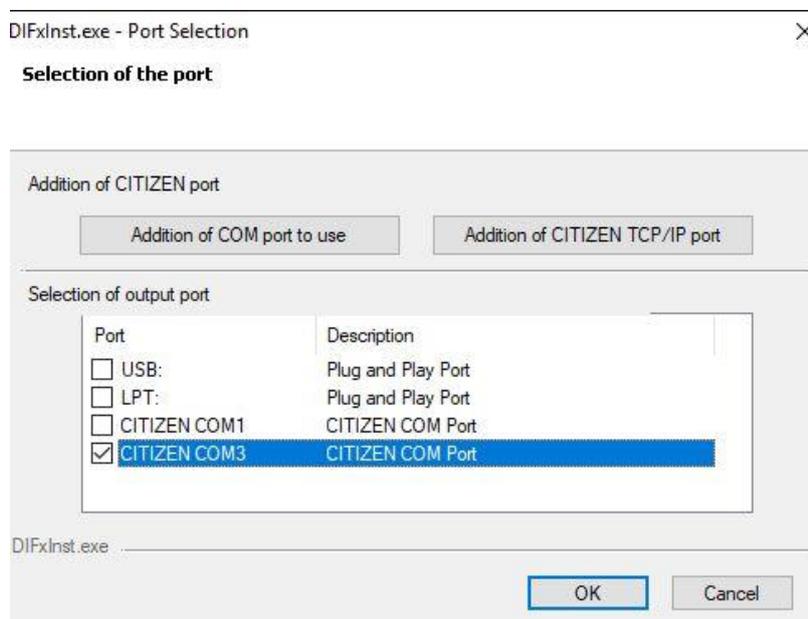


B) Installing the printer driver with a confirmed COM port.

Install the driver for your printer and follow the steps already described.

On the port selection screen of the installation, select the COM port identified above (CITIZEN COM3 in the example below) to continue with the installation.

If the COM port is not displayed, press the "COM port used by the printer" button and select the COM port you want to add. If necessary, repeat the same operation and the selected CITIZEN COM port will be displayed.



Remarks on Bluetooth

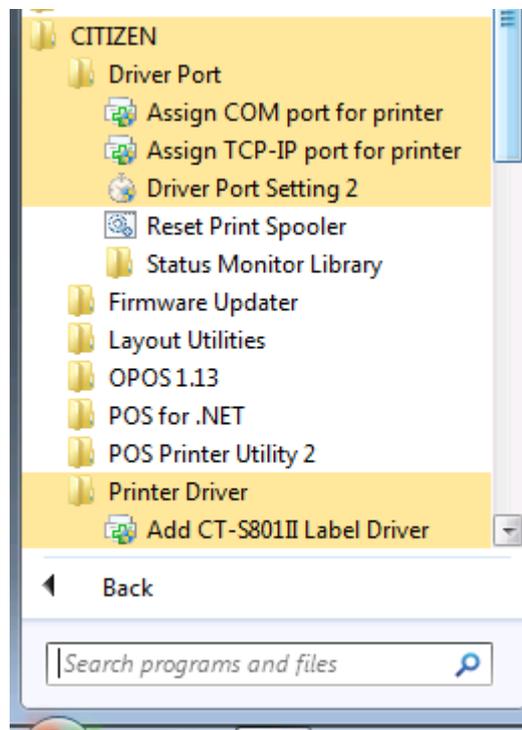
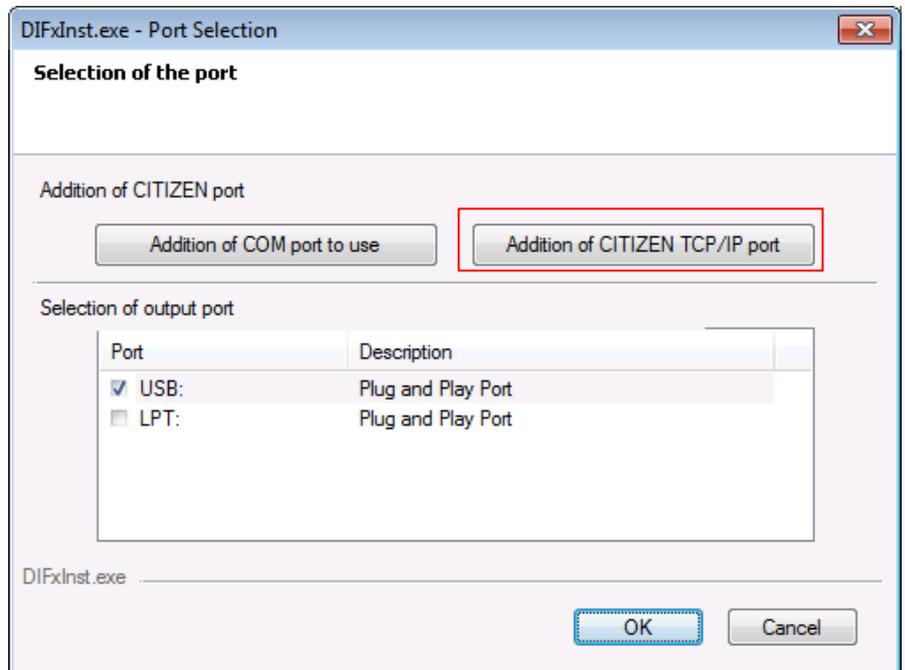
- Since Bluetooth is a wireless communication method, it may be affected by the communication environment.
- When using the Bluetooth function of Windows, the reconnect request prepared for iOS is not available. To avoid negative effects of the function, it is recommended to disable the MSW13-6 reconnect request on the printer. The printer provides a simple way to disable it manually. Please refer to the printer's manual.
- The printer must be set up so that Bluetooth will not be disconnected during sleep mode using the Windows power saving function.
- The communication speed of Bluetooth is slow, so it is necessary to use Bluetooth for graphic printing and other applications with a large amount of data. Printing takes longer and is more susceptible to communication problems. It is recommended to use the printer's built-in fonts whenever possible to reduce the amount of data.

3.5 CITIZEN TCP/IP PORT

To use status function of the driver through LAN or wireless LAN interface, it is necessary to have CITIZEN TCP/IP port.

An existing IP address needs to be assigned to the TCP / IP port monitor. Please follow the procedure below.

As shown in the right picture, press "Addition of CITIZEN TCP/IP port" button to add new CITIZEN TCP/IP port. Or from the Start menu, select "CITIZEN" - "Driver Port" - "Assign TCP-IP port for printer"



Check the IP address assigned to the printer and enter it in "Port Name". "Host Name or IP" is automatically entered in conjunction with the entered IP address. Change "Host Name or IP" as necessary.

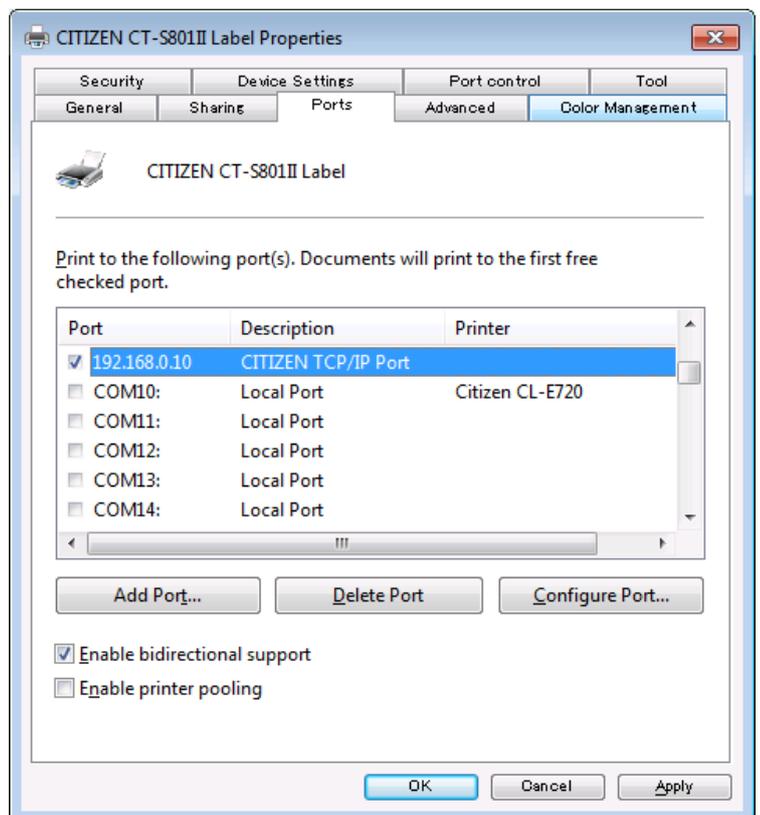
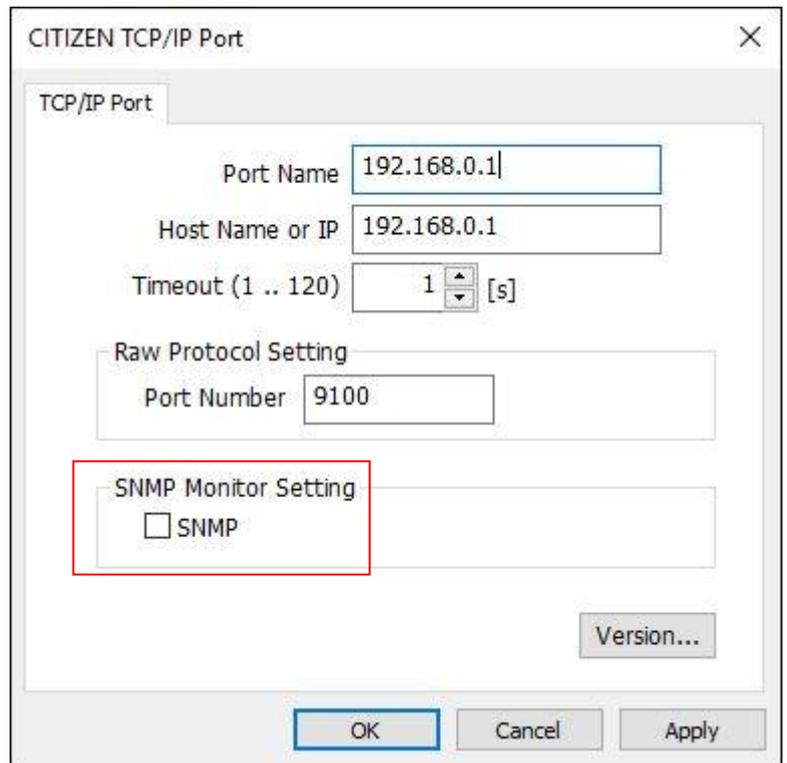
It is not necessary to change the port number of Raw Protocol Setting normally. Please change only when network side of the printer is changed.

SNMP Monitor Setting selects the method for acquiring status information. SNMP is a status acquisition method that can be used only on the network, and if SNMP is selected, you can expect problems due to

the conventional status acquisition method such as time-consuming printing and printing failure are solved. However, depending on the model of the printer, firmware version, interface board, etc., status acquisition by SNMP cannot be done or the type of printer status obtained may be reduced.

Please click "OK" when setting is completed.

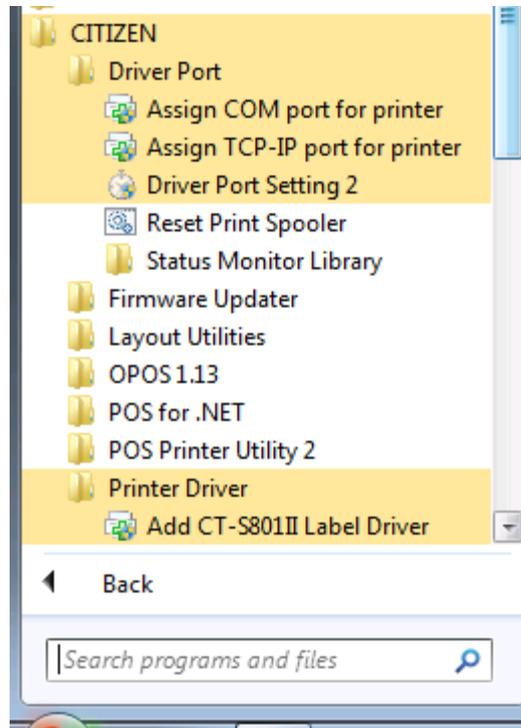
To confirm the installation was done correctly, right click on the printer icon => "Printer Properties" => "Ports" tab. And check if "CITIZEN TCP / IP Port" is added to the description of the port.



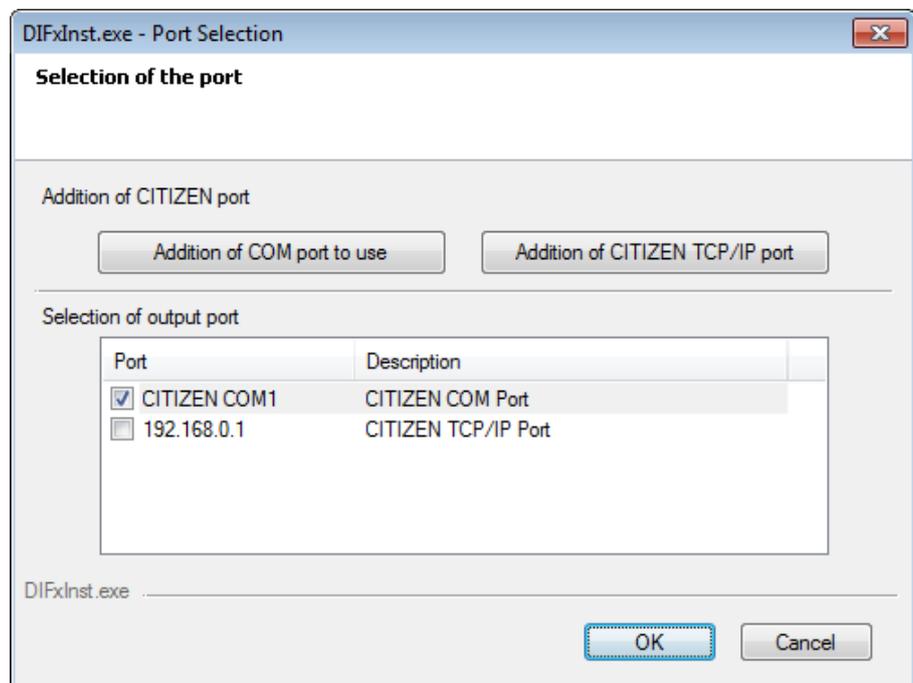
3.6 Additional driver installation

If you want to install additional driver to non-plug & play port such as serial interface, please follow the steps below.

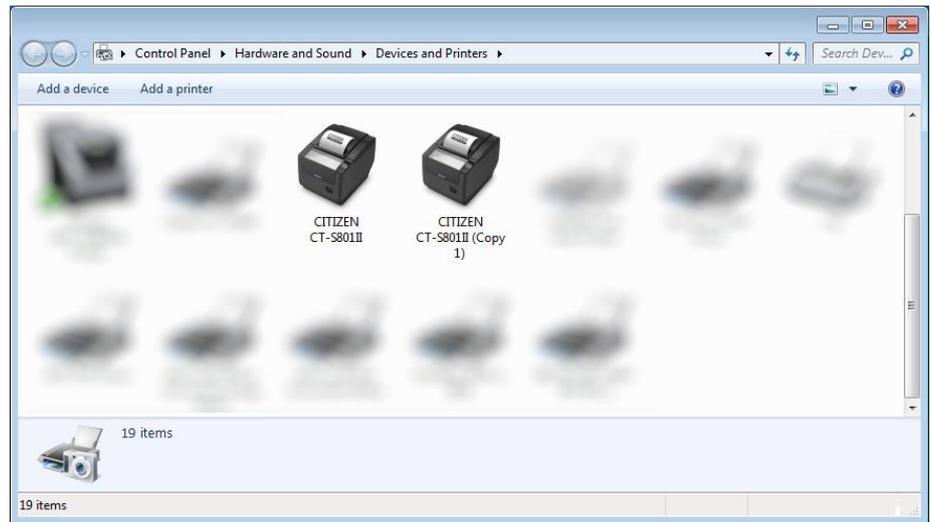
As shown in the right picture, choose "CITIZEN" - "Printer Driver" - "Add CT-S801II Driver"



Choose interface that the printer is connected and press "OK".



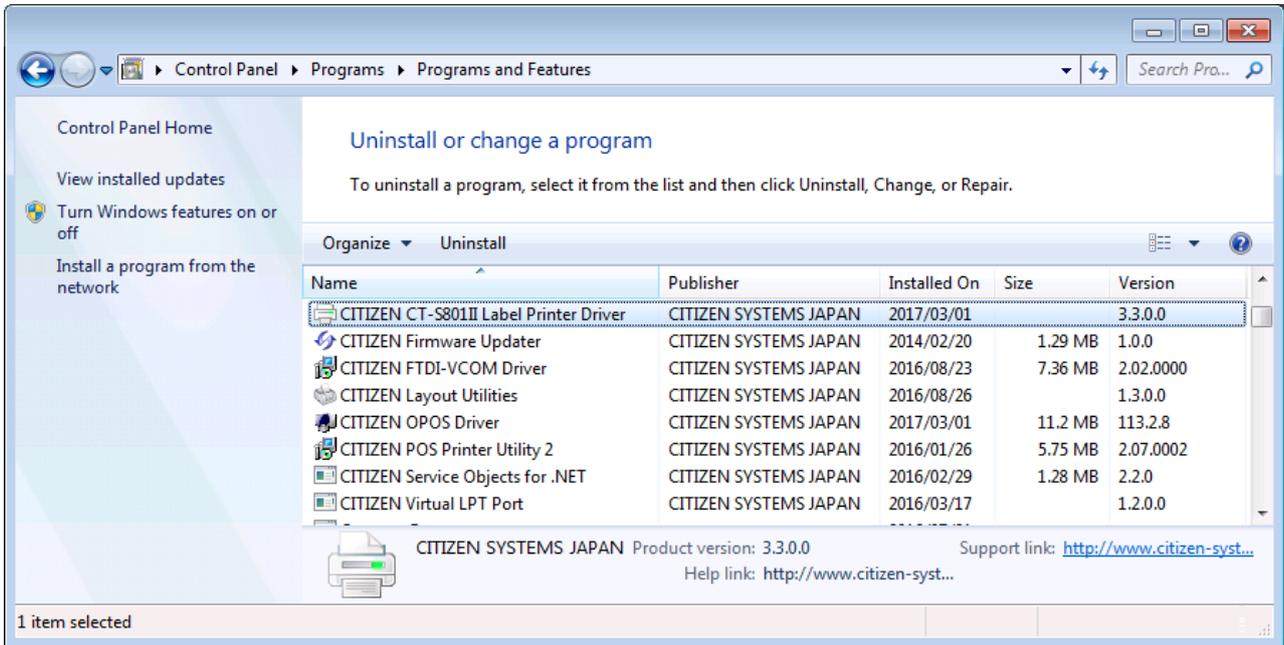
Additional printer driver is installed as (Copy 1).



- * Once driver for the model is installed, additional driver installation to Plug & Play port (=USB or LPT) can be done automatically just by connecting printer to the port.
- * Uninstalling whole drivers can be done as per the explanation in section "3.7 Uninstallation".

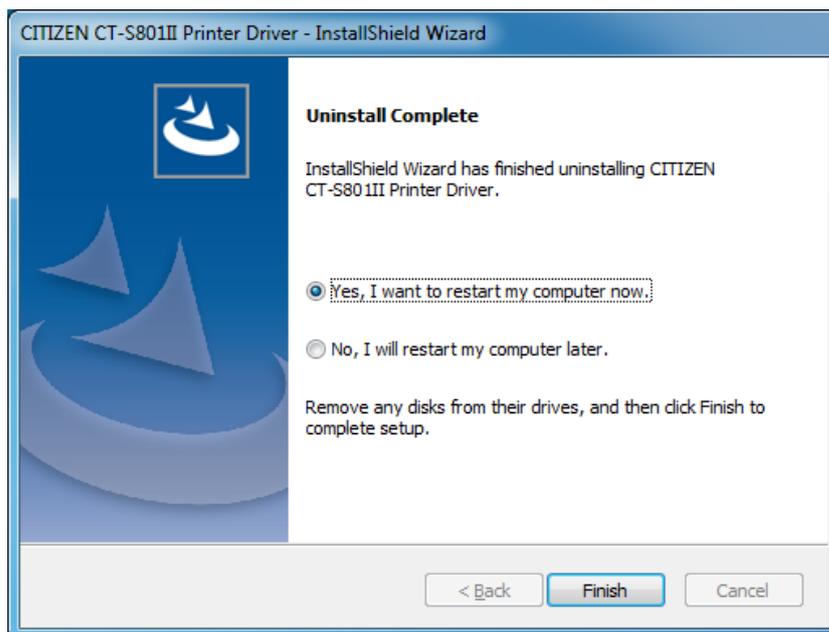
3.7 Uninstallation

Uninstallation of driver and software can be done from "Control Panel" --> "Programs and Features"
(The name may be "Add or Remove Programs" depending on OS.)



Choose "CITIZEN CT-S801II Printer Driver" to uninstall CT-S801II printer driver.

When multiple drivers are installed, depending on conditions, you may be asked to restart at uninstallation. Please restart according to the instructions.



3.8 Remarks for installation and uninstallation

- *The serial port settings on both the printer and PC need to match. If the setting does not match, it may cause no printing, garbage characters printing and so on.
- *If the driver uses COM port, other application to use same COM port may not work. In this case, you may be able to avoid the trouble by changing the COM port of the printer driver tentatively to other port.
- * Once a USB port is used for driver installation, please do not use other USB port. If other USB port is used, it may not be possible to print correctly. If it happens, it may be necessary to uninstall the driver and install the driver again.
- *If POS Printer Utility is used right after driver installation through Plug & Play port, it may cause communication failure. If it happens, reboot PC to have stable communication.
- * When you try to install the driver, if the driver for same model already exist on the same PC, please uninstall the existing driver first and then run Setup software. To uninstall the driver, please follow the instruction depending on the installation type. If the installation is done by Setup software, uninstallation should be done as mentioned in former section 3.4. If the driver installation is done by manually, uninstallation should be done manually. The installation manual for manual installation explained for that. And the document is supplied separately.
- * With USB interface, installation failed by some reason and not possible to uninstall, printer may be recognized as Unknown device in Device Manager of Control Panel. In such case, delete the unknown device from Device Manager.

4. Memory Switch Settings

When using the driver, the memory switch is left as default and there is almost no problem, but it is recommended that some are set as follows. For the details of the method of operating each switch and the content of setting, refer to User's Guide of each model.

Depending on the model, some memory switches may not exist.

Memory Switch Setting

MSW No.	Function	Setting	Description
1-1	Power ON Info	OFF	Valid
1-3	Busy condition	ON	Full
6-1	Act. for Driver	OFF	Invalid
13-6	Auto Reconnect (Bluetooth model)	Invalid	-