CITIZEN

USB Virtual COM (VCOM) Driver Guide

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A. Introduction

This document is to explain about the virtual COM port driver installation.

This driver is for operating the printer's USB port virtually as a serial port on Windows.

By using this driver, applications printed via serial port can print to a printer connected to USB.

Please read this document carefully prior to the actual usage.

B. Condition

The printer's USB port must be in virtual COM mode in order for the virtual COM driver to work.

The method of setting to virtual COM mode differs depending on the printer.

-POS Printer (CT-Sxxx. except CT-S280, CT-Exxx. CT-Dxxx, PPU700II, PMUxxxx)

　MSW5-3 USB mode: OFF / Virtual COM

-POS Printer (CT-P29x)

　DIP switch No.3 OFF (Default)

-Label Printers: (CLP-5xx/6xx/8300, CL-Sxxx and CL-Exxx CLP needs to have updated firmware)

　Interface setting => Choose VCOM in USB Device Class

This virtual COM driver cannot be used for CT-S280 and PPU2xxx type 1.

There is a virtual COM driver installer for CT-S280. Please use that for CT-S280.

C. Condition of PC side

OS: Windows2000, XP, Vista, 7, 8, 10 or derivative OS
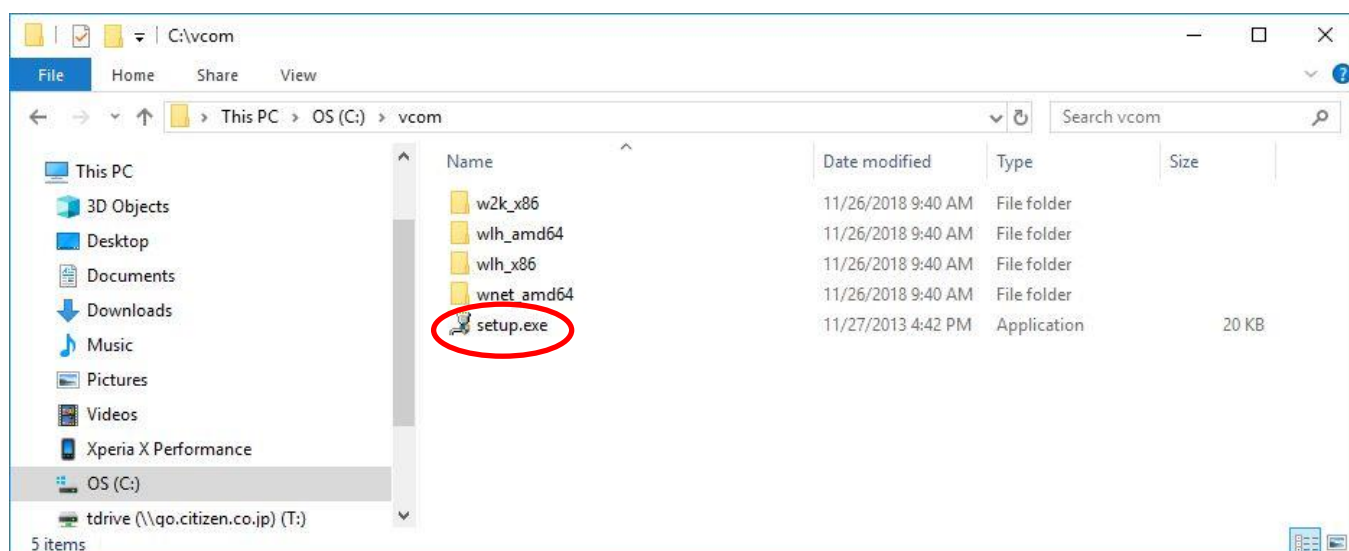
(Derivative OS contains the necessary components)

PC: USB port is available to connect to the printer.

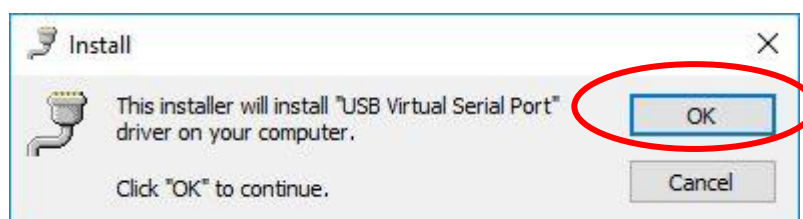Virtual COM driver for other devices is not installed (it may not work properly)

D. Installation steps

This explanation is based on Windows 10 but the steps are almost same for other OS.

1. Please set the USB port setting for "Virtual COM" or "VCOM"

2. Connect the PC and printer with USB cable while printer power is kept off.

3. Unzip the ZIP file (If you get the Virtual COM driver as ZIP file.)

4. Run "Setup" in the folder of driver files.

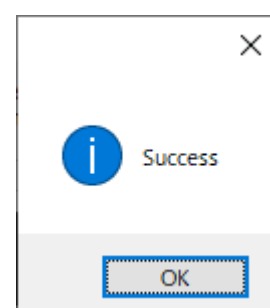5. Following dialogue shows up. Please press "OK".

6. "Windows Security" window shows up. Please press "Install".

Follow the installation wizard to proceed with the installation after this step.

When installation is successfully completed, the dialog on the right is displayed.

7. After installing the virtual COM driver, turn on the printer. Additional wizard screens may appear.
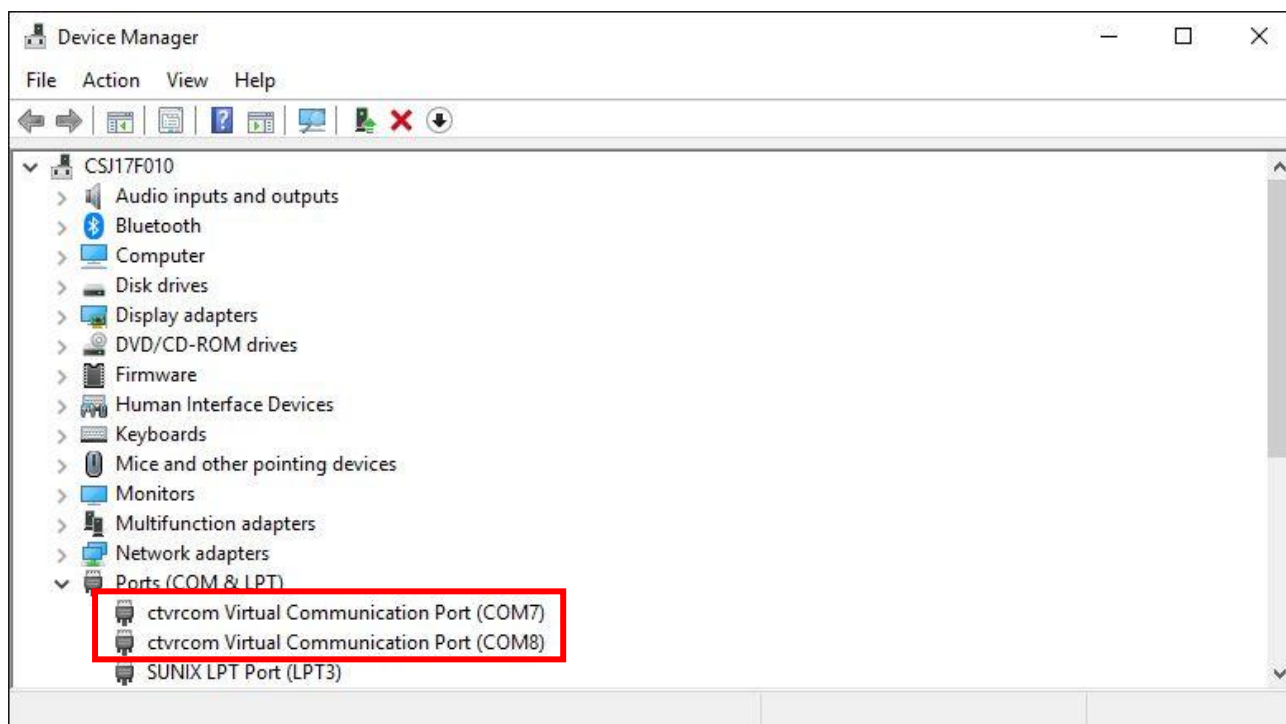
Complete the installation with recommended choices and a "Continue" button.

Depending on the environment, it may be better to restart here.
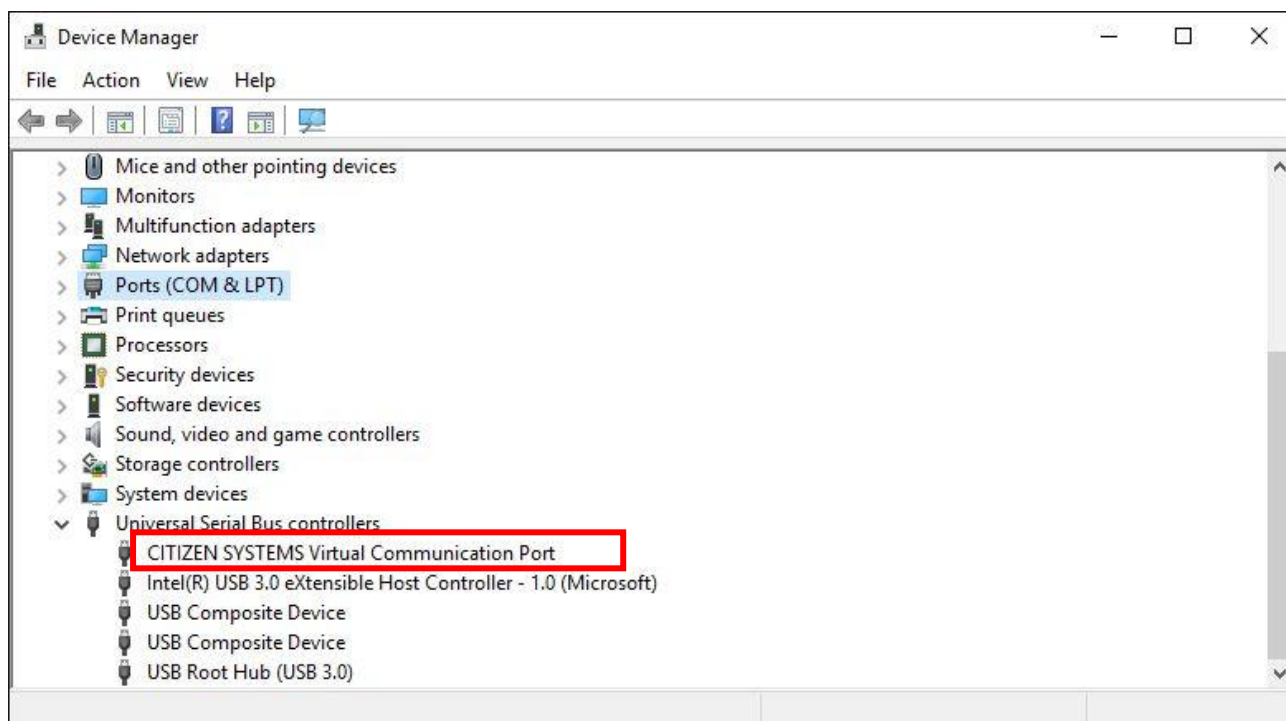
E. Verification of installation result

Make sure that the driver is correctly installed in the device manager.

Port: two of "ctvcom Virtual Communication Port" are displayed. (COM7 and COM8 as default)
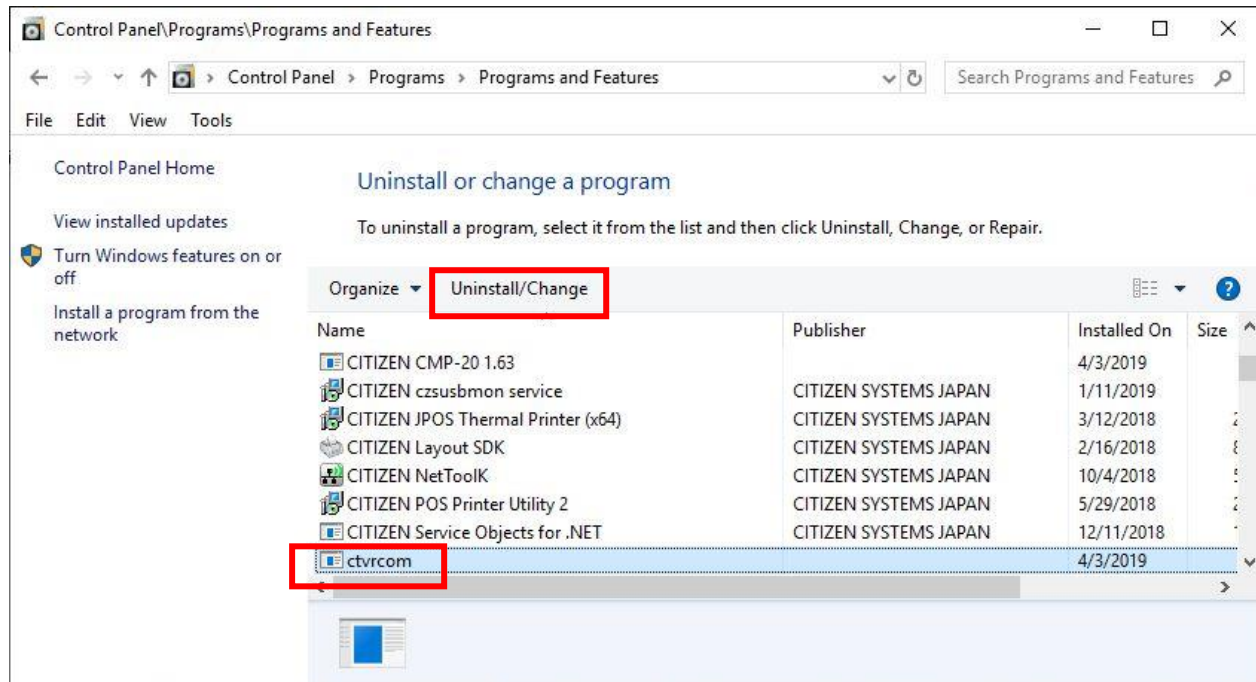

Universal Serial Bus controller: When connecting VCOM mode printer, "CITIZEN SYSTEMS Virtual Communication Port" is displayed.
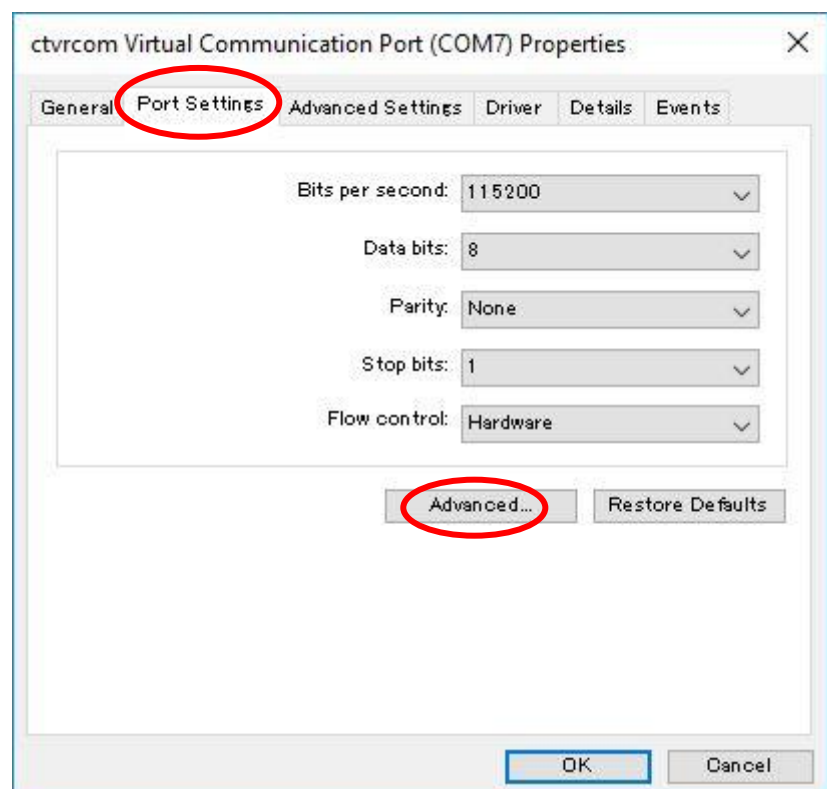
F. Uninstallation

To remove the driver, select "ctvrcom" in "Uninstall or change a program" in the "Control panel" and press "Uninstall / Change". As this will bring up the Uninstall dialog, follow the instructions of the dialog.
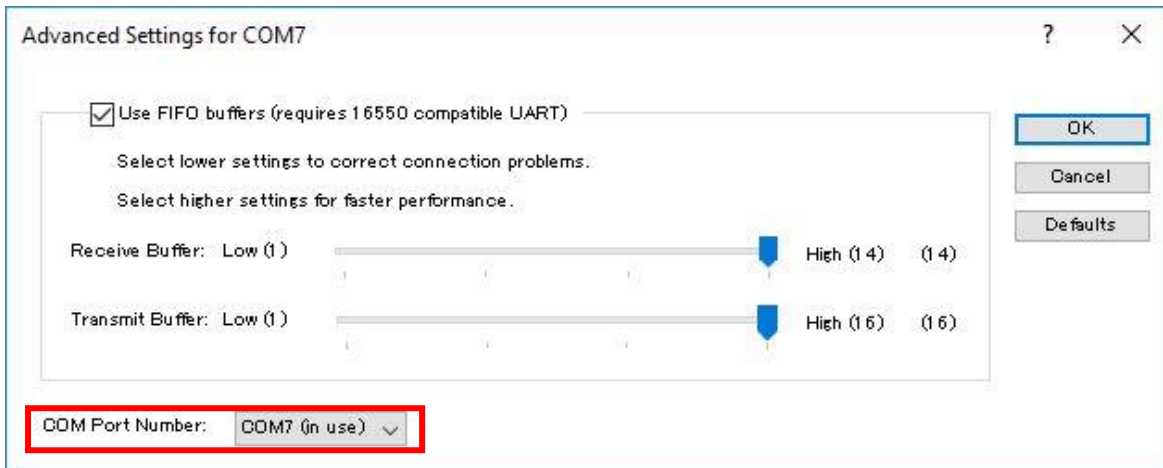

G."Port Settings" and "Advanced Settings"

Ports Settings Tab: While selecting the virtual COM port on Device Manager, right- click, choose Properties, and select the Port Settings tab on appeared dialog. Then following dialog appears. Regardless of the PC and printer settings, communication of VCOM is fixed as 115,200 bps baud rate and hardware flow control. Click Advanced button to move to next screen.
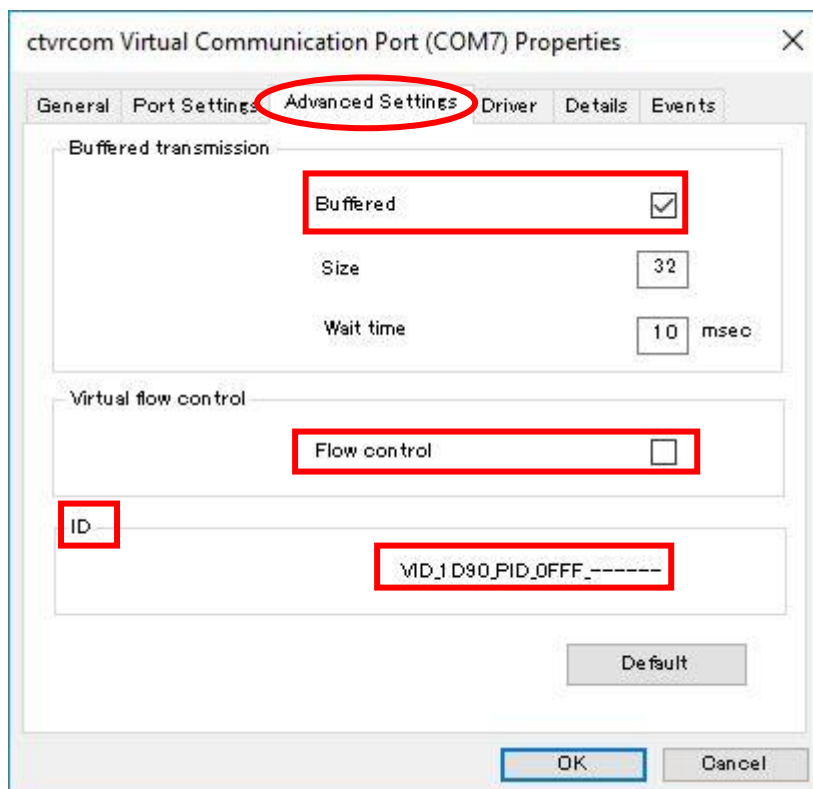
COM port number can be changed on this screen. (If the COM port number is not already in use)

Advanced Settings tab：：

Buffered：Depending on how the app sends data, communication with virtual COM driver can be very slow. In that case, activate "buffered" on the Advanced Settings tab. There is no need to adjust Size or Wait time.

Flow control：Do not choose it.

ID：Although USB identifies the communication partner by ID, since different virtual COM IDs (two types) are assigned to the printer depending on the model; COM7 and COM8 are prepared as port numbers to which each USB ID is assigned.

Choose the correct port number for your model.

COM8 (VID: 2730, PID: 0FFF) => Older POS Printers (CT-S310/2000/4000/CT-P29x)

COM7 (VID: 1D90, PID: 0FFF) => Other models

Remarks) VCOM port number

-Other port number may be assigned depending on the COM port status of the PC, such as when COM7 or COM8 is already in use.

- It is possible to assign port numbers other than COM7 or COM8 as the default port number of VCOM driver. Please contact us if necessary.