

# Appendix.1 Setting up Active USB-COM port driver

## When Using UWP Application

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This manual describes the procedure for setting up Active USB-COM port driver to use UWP applications (hereinafter referred to as “UWP apps”).

COM port constructed according to the setup procedure described in “ActiveUSBCOM\_UsersGuide.pdf” (hereinafter referred to as “regular setup”) cannot be used for the UWP apps.

To use the COM port via this driver for the use of an UWP app, set up the driver for the UWP app referring to “3. Setting up Driver for UWP app.”

There are some specification differences between the driver set up for the UWP app and the regularly set up driver. For details, refer to “2. Differences in Driver Operation between Setup for UWP App and Regular Setup.”

## 1. Operation Environment

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### ■ Windows OS (When this version is released)

Windows OS having confirmed its Active USB-COM port driver operation is as follows:

Windows 10 (32bit/64bit) version 2004

\* For details and updated information of Windows OS supporting status, refer to the following URL.

<https://www.denso-wave.com>

### ■ Execution environment for setup and ancillary tools

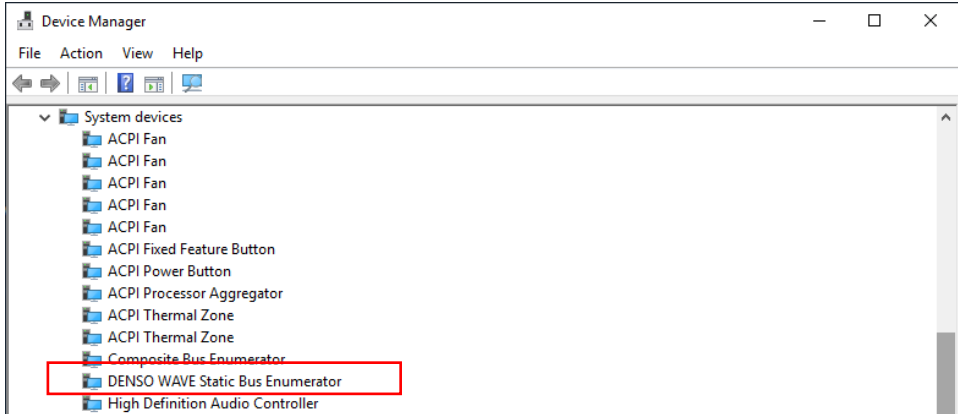
Available only for the desk top mode:

(Not supporting the execution of setup and ancillary tools in the S mode)

## 2. Differences in Driver Operation between Setup for UWP Apps and Regular Setup

Differences in driver operation between setup for UWP apps and regular setup are described in the table below:

Difference 1: Registry position for checking the device connection	The registry positions specified in “6. How to Check Connected USB Device”, “6.2 How to Check Registry Information” of “ActiveUSBCOM_UsersGuide.pdf” are changed in <b>red bold characters</b> in the table below:		
		Regular setup	Setup for UWP app
	Key	HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\Root\PORTS\{nnnn}\ (nnnn: 4-digit optional numerals determined by Windows)	<b>HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\USB\BUS\{dwserial}\{nnnnnnnnnnnnnnnnnnnn}\</b> (nnnnnnnnnnnnnnnnnnnn: 14-digit optional alphanumeric characters determined by Windows)
	Entry	FriendlyName	FriendlyName
	Type	REG_SZ	REG_SZ
	Data	When connected: DENSO WAVE Active USB-COM Port (COMp) – Connected  When disconnected: DENSO WAVE Active USB-COM Port (COMp) – Disconnected  * No indication of “Disconnected” just after installation  (p: COM port number)	When connected: DENSO WAVE Active USB-COM Port (COMp) – Connected  When disconnected: DENSO WAVE Active USB-COM Port (COMp) – Disconnected  * No indication of “Disconnected” just after installation  (p: COM port number)
	Key	HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\Root\PORTS\{nnnn}\Device Parameters (nnnn: 4-digit optional numerals determined by Windows)	<b>HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\USB\BUS\{dwserial}\{nnnnnnnnnnnnnnnnnnnn}\Device Parameters</b> (nnnnnnnnnnnnnnnnnnnn: 14-digit optional alphanumeric characters determined by Windows)
	Entry	ComNumber	ComNumber
	Type	REG_DWORD	REG_DWORD
	Data	Indicating COM number in 4 bytes  (Ex) COM3: 0x00000003	Indicating COM number in 4 bytes  (Ex.) COM3: 0x00000003
	Key	HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\Root\PORTS\{nnnn}\Device Parameters (nnnn: 4-digit optional numerals determined by Windows)	<b>HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\USB\BUS\{dwserial}\{nnnnnnnnnnnnnnnnnnnn}\Device Parameters</b> (nnnnnnnnnnnnnnnnnnnn: 14-digit optional alphanumeric characters determined by Windows)
	Entry	ComNumber	ComNumber
	Type	REG_DWORD	REG_DWORD
	Data	Indicating COM number in 4 bytes  (Ex) COM3: 0x00000003	Indicating COM number in 4 bytes  (Ex.) COM3: 0x00000003

		Enum\Root\PORTS\Wnnnn\Device Parameters (nnnn: 4-digit optional numerals determined by Windows)	Enum\DWBUS\dwserial\Wnnnnnnnnnnnnnnnnnnnn\Device Parameters (nnnnnnnnnnnnnnnnnnnn: 14-digit optional alphanumeric characters determined by Windows)				
	Entry	ConnectStatus	ConnectStatus				
	Type	REG_DWORD	REG_DWORD				
	Data	Indicating the connecting status in 4 bytes.  When connected: 0x00000001  When disconnected: 0x00000000	Indicating the connecting status in 4 bytes.  When connected: 0x00000001  When disconnected: 0x00000000				
When porting the existing Win32 app and .NET app using this registry to UWP app, change the registry position to be referred.							
Difference 2: Driver configuration	The driver configuration specified in “3.1 About Driver Configuration of Active USB-COM Port Driver” of “ActiveUSBCOM_UsersGuide.pdf” is changed in <b>red bold characters</b> in the table below:						
	<table><tr><th>Regular setup</th><th>Setup for UWP app</th></tr><tr><td>This driver is composed of two drivers as shown below: Driver for virtual COM port: dwserial.sys (Resident driver)  Driver for USB: dwusb.sys (Plug and play driver)</td><td>This driver is composed of <b>three</b> drivers as shown below: <b>Virtual path driver: dwbus.sys</b> <b>(Resident driver)</b> Driver for virtual COM port: dwserial.sys (Resident driver) Driver for USB: dwusb.sys (Plug and play driver)</td></tr></table>			Regular setup	Setup for UWP app	This driver is composed of two drivers as shown below: Driver for virtual COM port: dwserial.sys (Resident driver)  Driver for USB: dwusb.sys (Plug and play driver)	This driver is composed of <b>three</b> drivers as shown below: <b>Virtual path driver: dwbus.sys</b> <b>(Resident driver)</b> Driver for virtual COM port: dwserial.sys (Resident driver) Driver for USB: dwusb.sys (Plug and play driver)
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When files of this driver such as sys file are registered in the PC security software, additionally register dwbus.sys. To check if dwbus.sys is installed normally, check that "DENSO WAVE Static Bus Enumerator" is under "System Devices" in Device Manager.							
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### 3. Setting up Driver for the UWP App

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To use this driver for the UWP app, the following procedure is prepared instead of “2.1 How to install Active USB-COM Port Driver” of “ActiveUSBCOM\_UsersGuide.pdf.”

- Double-click the file **“Install\_UWP.bat”** to execute.
- Execute the file “install.exe” by **specifying the option “-uwp” or “-UWP”** from the command prompt.

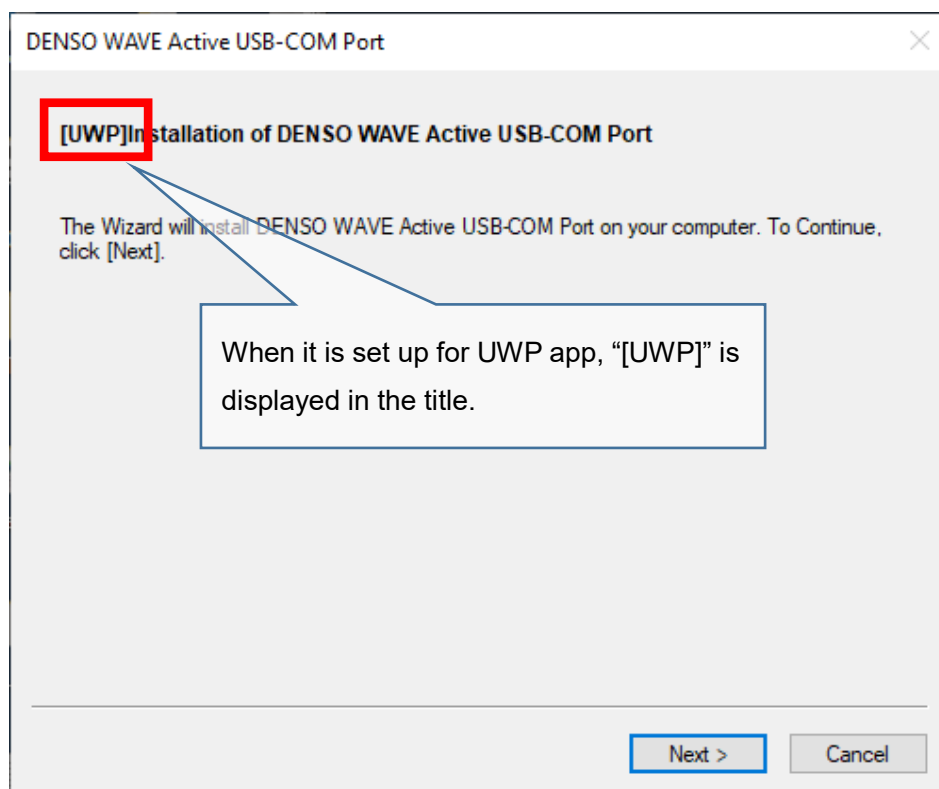
#### Execute by double-clicking “Install\_UWP.bat”

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This method generates one COM port to the smallest available COM port number, which is 3 or after, managed by PC. The installation procedure is described below:

- 1) Execute “Install\_UWP.bat.”

When the user account control message screen is displayed, select “Yes (Y).” InstallShield wizard screen is displayed, and select “Next (N).”



As for the subsequent operations, follow “2.1.1 Double-click ‘install.exe’ to execute” of “ActiveUSBCOM\_UsersGuide.pdf.”

Execute "install.exe" by specifying the option "-uwp" from the command prompt

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[Format example]

```
>start /wait install.exe -uwp
```

[Return value]

Refer to 2.1.8 of "ActiveUSBCOM\_UsersGuide.pdf."

[Use in combination with other options]

All command line options from 2.1.3 to 2.1.7 of "ActiveUSBCOM\_UsersGuide.pdf" can be used in combination with "-uwp" option.

(Example: Specifying COM number as "10" to set up the driver for UWP

```
start /wait install.exe -uwp -p 10.)
```