

CANView

User Manual



Revision History

Revision Date	Document Version	Pages	Description
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1. Preface

In this chapter, documents related to CANView is introduced.

About This Manual

This manual explains the features, specifications, installation guide, and how to use the CANView utility.

To Our Readers

This manual was created to support the users of CANView. We recommend reading this manual before using the CANView. The manual includes the details on utilizing software settings. This document will be helpful for controlling and managing CANView with its connected devices.

Manual Composition

1. Preface: Contains the general information and introduction of CANView.
2. Getting Started: Contains introductions on CANView features and recommended specifications.
3. Installing: Contains the details on how to install CANView.
4. Running: Contains the details on CANView menu, screen composition, settings, and how to use the utility.
5. Appendix: Contains details on mask and ABOR feature supported by CANView.

CANView Related Documents

Document	Description
sCAN V1.0	Serial (RS-232) to CAN converter
uCAN V3.0	USB 2.0 to CAN converter
sCAN V1.0 User Manual	How to use sCAN V1.0
sCAN V1.0 Spec Sheet	sCAN V1.0 specifications
uCAN V3.0 User Manual	How to use uCAN V3.0
uCAN V3.0 Spec Sheet	uCAN V3.0 specifications

All documents are kept up-to-date in our website. Contents of the documents may change without notice.

2. Getting Started

In this chapter, CANView introduction, features, and recommended specifications are explained.

Introduction

CANView is a utility for Windows to use with sCAN V1.0 or uCAN V3.0 devices. Those devices can be controlled through using serial commands when the users cannot use this utility for Windows. For this, libraries of commands are provided to utilize products by SystemBase just the way you want. CANView is intended for typical users without professional level of programming capabilities. CANView is a GUI based utility that provides easy-to-use configuration and testing features. Also, the device firmware can be upgraded through CANView.

Features

- Serial (RS-232) and CAN settings from utility or serial commands
- Supports Standard and Extended CAN Data Formats
- Counter for Transmission and Reception Data
- Save Received Data into a Text File
- Firmware Update from the Utility
- ABOR Communication option is provided

Recommended System Specification

1) Minimum System Specification

Category	System specs
CPU	Intel Pentium 1GHz
Memory	512MB
OS	Windows 7, 8.1 and greater
HDD	64GB
Resolution	1360 x 768
Port	sCAN V1.0: RS-232 Serial Port uCAN V3.0: USB 2.0,

2) Recommended System Specification

Category	System specs
CPU	Intel Quad Core Pentium 3GHz
Memory	8GB
OS	Windows 7, 8.1 and greater
HDD	128GB
Resolution	1360 x 768
Port	sCAN V1.0: RS-232 Serial Port uCAN V3.0: USB 2.0

3. Installing

In this chapter, how to install VCP drivers and CANView are explained.

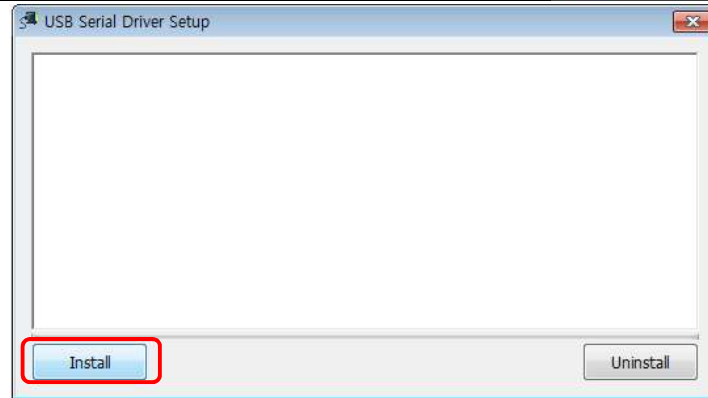
Installing USB VCP (Virtual COM Port) Windows Drivers

Detail on installing USB VCP Windows drivers on systems without serial ports is explained below. If the system you wish to use already has a serial port, or VCP Windows driver installed, you can skip this section and move to “Installing CANView” section.

1. Connect uCAN or USB-to-serial converter to your computer.
2. Go to <http://www.solvline.com/>
3. Click “ENGLISH” on top right corner
4. Click “Drivers”
5. Click “USB Device” then download “USB One Click Driver”
6. Extract the whole ZIP file.
7. Run “wmic os get osarchitecture” command from the command line prompt, or the DOS screen.
8. After checking your OS type, go to either 32bit 64bit folder that you extracted for the driver.
9. Double click “USB_Serial_Driver_Setup”
10. Click the “Install” button from the window.

※ SystemBase does not provide drivers for other manufacturers.

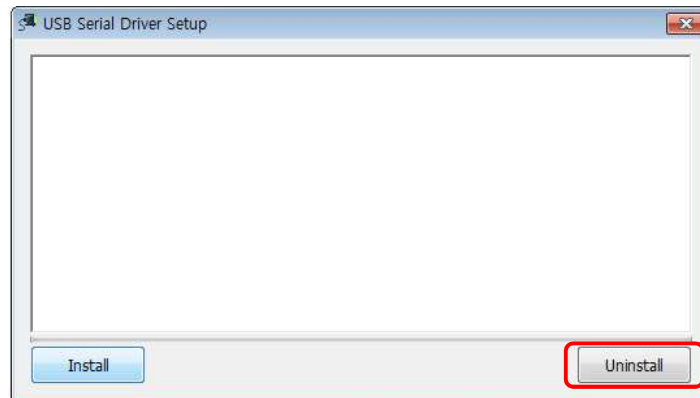
If needed, please contact the company where you purchased the product.



※ When installing driver for this product, please install from the local storage. If you try to install from a network drive, there may be a problem.

Uninstalling USB VCP Windows Driver

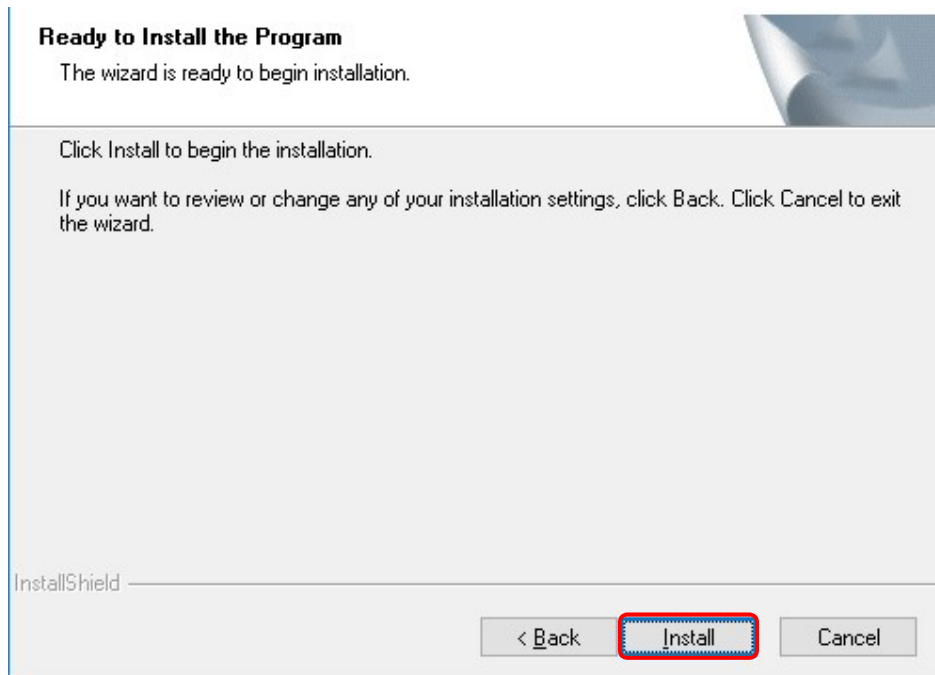
1. Please refer to the installation process (step 1 to 9).
2. After the below window appears, click "Uninstall" button.



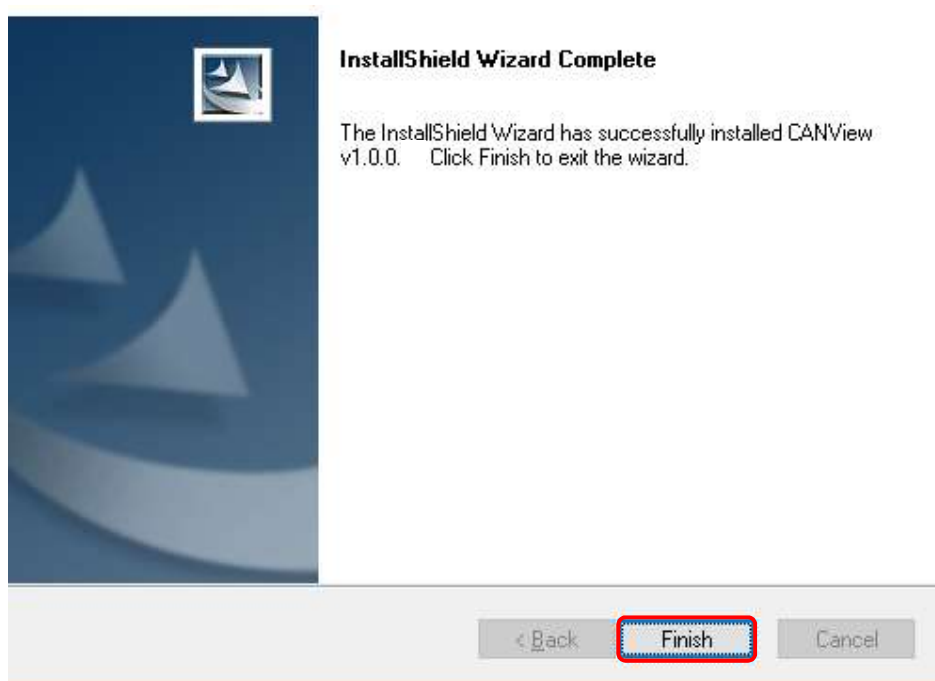
Installing CANView

※ If you have an installation CD, go to: [CD Drive]\PROGRAM directory to install the utility.

1. Connect uCAN or USB-to-serial converter to your computer.
2. Go to <http://www.solvline.com/>
3. Click “ENGLISH” on top right corner
4. Click “Utilities” then “Converter” tab
5. Download CAN Config and Test Utility or CANView.
6. Double click downloaded file.
7. Click “Install” after below window appears.



8. Click “Finish” when below window appears.



9. Check if shortcut icon appears in the start menu and the desktop.



<Desktop shortcut>



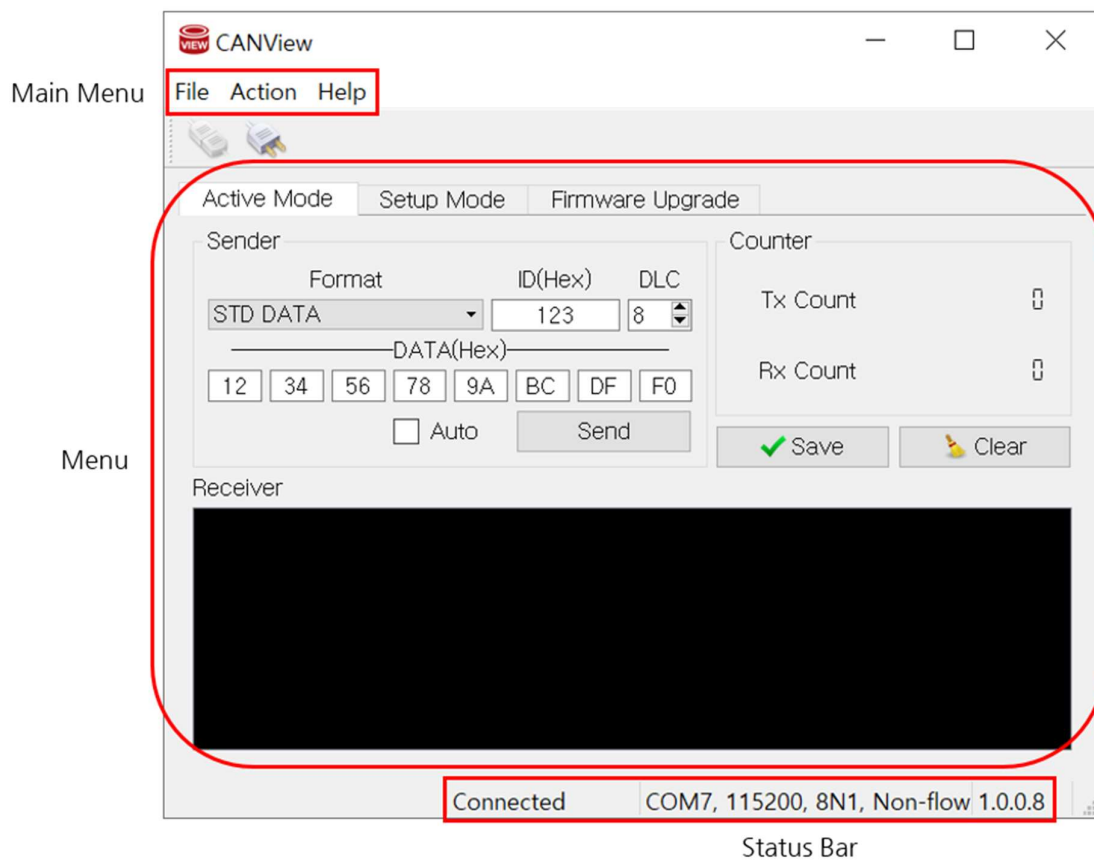
<Start menu shortcut>

4. Running

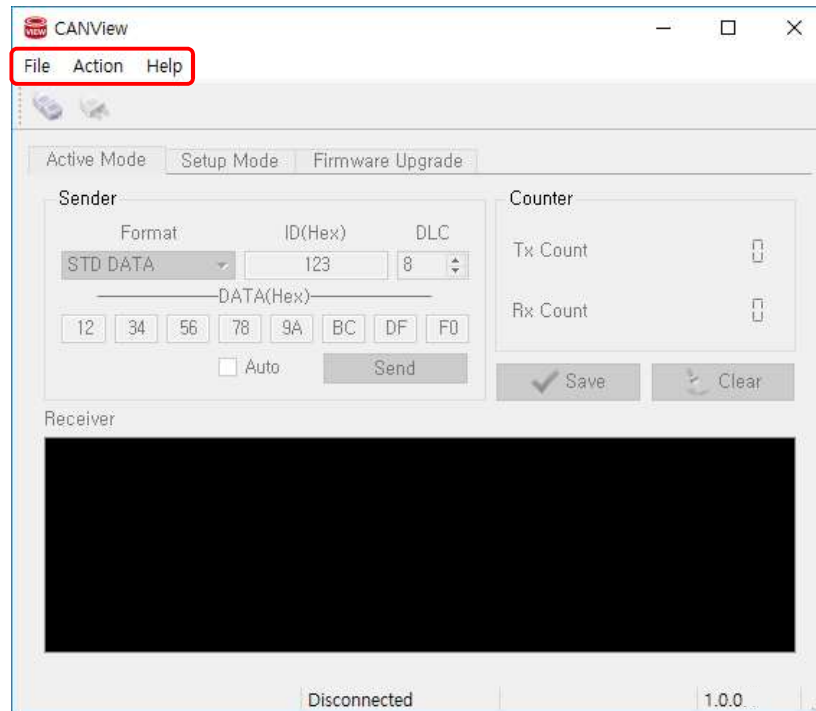
In this chapter, details on CANView screen layout, menu, icons, and its usage.

Screen Layout

CANView is composed of a main menu, modes menu, and status bar as shown below:





Main Menu



Features are as follow:

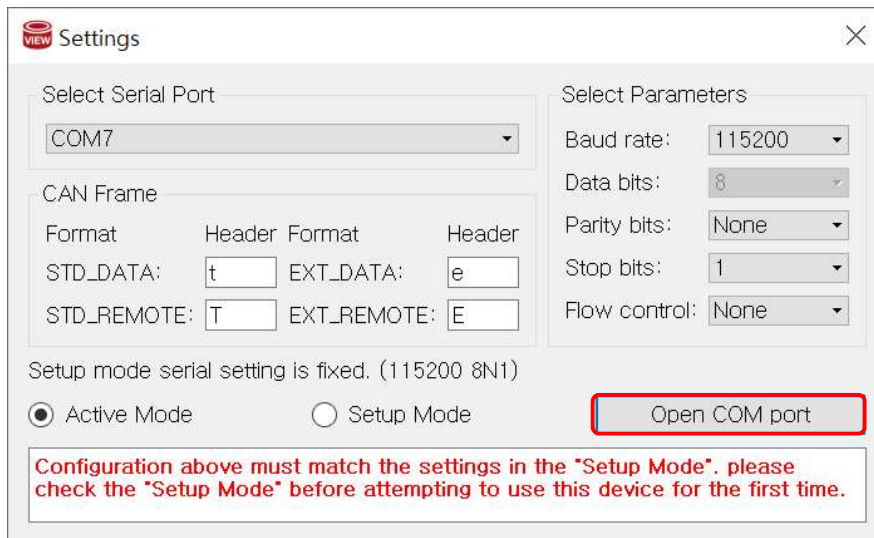
Main Menu	Sub Menu	Description
File	Quit	Quit CANView
Action	Connect	Connect to the device for configuring testing, and updating the firmware.
	Disconnect	Disconnect from the device.
Help	About	Display CANView Version

Connect with the Device

Icon	Description
	Connect Connect the device through serial port or VCP (Virtual COM Port).
	Disconnect Disconnect from the device.

Check the serial port number or the VCP (Virtual COM Port) number you wish to use.

Select the COM number from the CANView, and click "Open COM port".



The image shows the 'Settings' dialog box in the CANView software. It has a title bar with the 'VIEW' logo and a close button. The dialog is divided into several sections:

- Select Serial Port:** A dropdown menu showing 'COM7'.
- CAN Frame:** A section with four input fields: 'Format' (set to 't'), 'Header' (set to 'e'), 'EXT_DATA' (set to 'e'), and 'EXT_REMOTE' (set to 'E').
- Select Parameters:** A section with five dropdown menus: 'Baud rate' (set to '115200'), 'Data bits' (set to '8'), 'Parity bits' (set to 'None'), 'Stop bits' (set to '1'), and 'Flow control' (set to 'None').
- Setup mode serial setting is fixed. (115200 8N1):** A note indicating that the setup mode settings are fixed.
- Mode Selection:** Two radio buttons: 'Active Mode' (selected) and 'Setup Mode'.
- Open COM port:** A button with a red border, used to open the selected serial port.
- Warning:** A red text box at the bottom stating: 'Configuration above must match the settings in the "Setup Mode". please check the "Setup Mode" before attempting to use this device for the first time.'

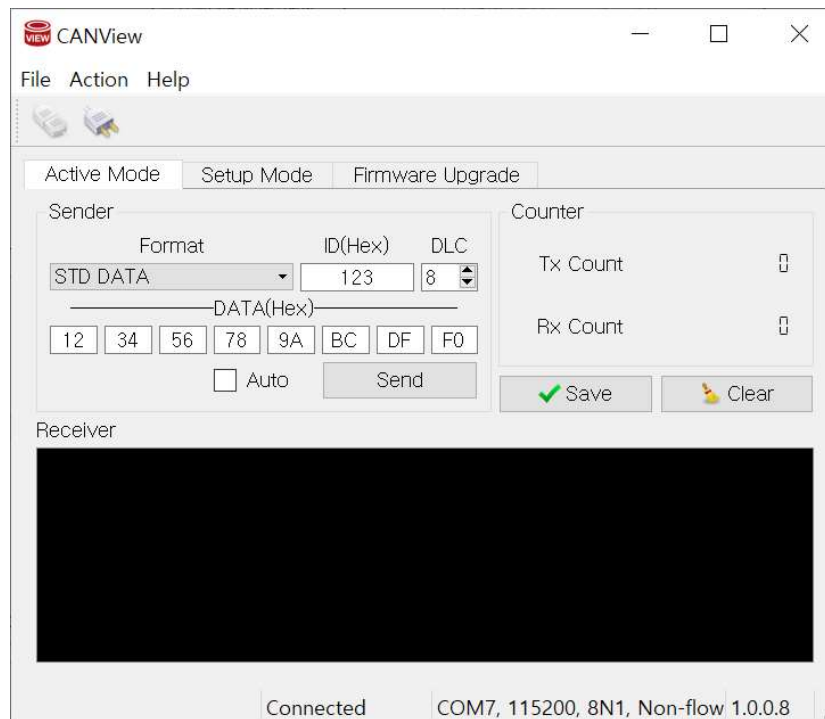
Below options will appear from the connection settings window.

Category	Description
Baud Rate	Baud Rate Settings (9600~460800) kbps
Data Bits	Data Bit Settings (The ASCII format is used; the data bits are fixed to 8)
Parity Bits	Parity Bit Settings (None, Even, Odd, Mark, Space)
Stop Bits	Stop Bit Setting (1, 2)
Flow Control	Flow Control Setting (None, Hardware)

Active Mode

From the “Active Mode”, you can transmit and receive CAN data and check the counters of each.

※ To change settings for sCAN and uCAN, you need to change the third switch on the bottom of the product to off or ‘Setup’ mode. After configuration is done, click the [Apply] button, then change the switch to on or ‘Active’ mode to apply the configuration.



Sender

Format : CAN data settings and transmission

STD_DATA: Standard Data, STD_REMOTE: Standard Remote

EXT_DATA: Extended Data, EXT_REMOTE: Extended Remote

ID : Set the ID of CAN Frame to be transmitted.

Standard format: 0 to 1ff,

Extended format: 0 to 1ffffff

DLC : Set data length of CAN Frame Data

DATA : Set the Data value.

Auto : Can check whether same CAN frame is transmitted automatically.

Send : Transmits the set CAN frame.

Receiver

Displays received CAN data

Counter

Displays transmitted and received CAN data counter

Save

Save the received CAN data to a text file.

Clear

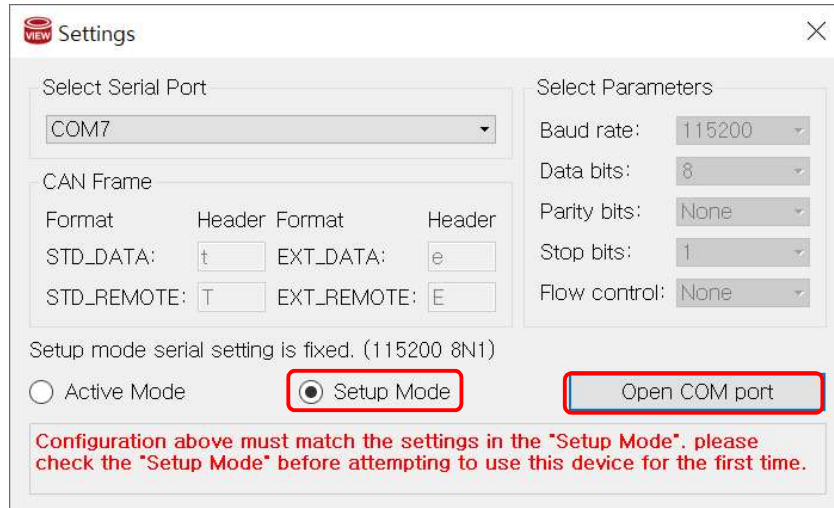
Initialize the Receiver or Counter

※ Correct data value is not displayed when "Clear" or "Save" button is clicked while transmission is in process.

※ CANView operates correctly only when the values in setup mode and settings windows are the same.

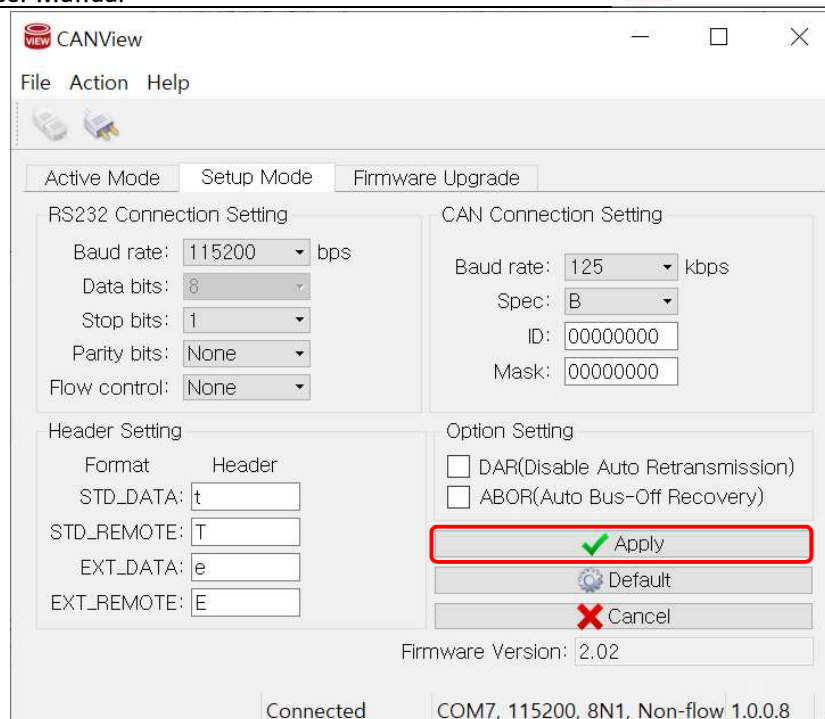
Setup Mode

From the “Setup Mode”, you can change the settings for the serial (RS-232) and the CAN.



The screenshot shows the 'Settings' dialog box with the 'VIEW' icon in the top left and a close button in the top right. The 'Select Serial Port' dropdown is set to 'COM7'. The 'CAN Frame' section has four input fields: 'Format' (t), 'Header' (e), 'Format' (T), and 'Header' (E). The 'Select Parameters' section has five dropdowns: 'Baud rate' (115200), 'Data bits' (8), 'Parity bits' (None), 'Stop bits' (1), and 'Flow control' (None). Below these, a note states 'Setup mode serial setting is fixed. (115200 8N1)'. At the bottom, there are two radio buttons: 'Active Mode' and 'Setup Mode' (which is selected and highlighted with a red circle). To the right of the radio buttons is a button labeled 'Open COM port' (also highlighted with a red rectangle). A red text box at the bottom contains the warning: 'Configuration above must match the settings in the "Setup Mode". please check the "Setup Mode" before attempting to use this device for the first time.'

※ To change settings for sCAN and uCAN, you need to change the third switch on the bottom of the product to off or ‘Setup’ mode. After configuration is done, click the [Apply] button, then change the switch to on or ‘Active’ mode to apply the configuration.



RS232 Connection Setting

Baud rate : Serial communication speed setting (Maximum 460800 bps)

Data bits : Length of data fixed to 8 bits.

Stop bits : It can be set to 1 and 2 as bits that inform the end of data.

Parity bits : Error detection bit can be set to Even, Odd, Mark, Space.

(Default: baud rate - 115200bps, data bits - 8, parity bits - none, stop bit - 1, flow control - none)

CAN Connection Setting

Baud rate : CAN communication speed setting (can be set up to 1000 kbps)

Spec A : Only Standard Format is transmitted or received.

B : Both standard and extended format send or receive

ID : CAN ID to be masked can be input as Hex value.

Mask : Typically, a CAN communication uses a combination of a reception ID and a mask ID to filter the received CAN data from the network to lessen the data processing. A reception ID is a CAN data frame ID. The received mask ID is used for cross referencing received data IDs to specific bits in field. If it matches, the data is received, and if it does not match, the data is not received.

Option Setting

ABOR : If a device causes too much errors, the overall CAN network becomes unstable, thereby causing the communication to be ineffective and data transmission to be delayed. To prevent such phenomenon from happening, the TEC (Transmit Error Count) and the REC (Receive Error Count) are counted during data reception to automatically separate excessive errors from the network. By doing this, communication efficiency is raised. After the errors get solved, the device can be rebooted to return the network to its normal state. However, by using the ABOR (Automatic Bus-Off Recovery) feature, the network can be recovered without needing to reboot the device.

Header Setting

Data Frame header Options. (Set in different case alphabet.)

STD_DATA: Standard Data, STD_REMOTE: Standard Remote

EXT_DATA: Extended Data, EXT_REMOTE: Extended Remote

Firmware Version

Firmware version display.

Apply

Save currently set values to the device

Default

Re-initialize to the out-of-the-box status

(Settings are saved after clicking 'Apply' button.)

Cancel

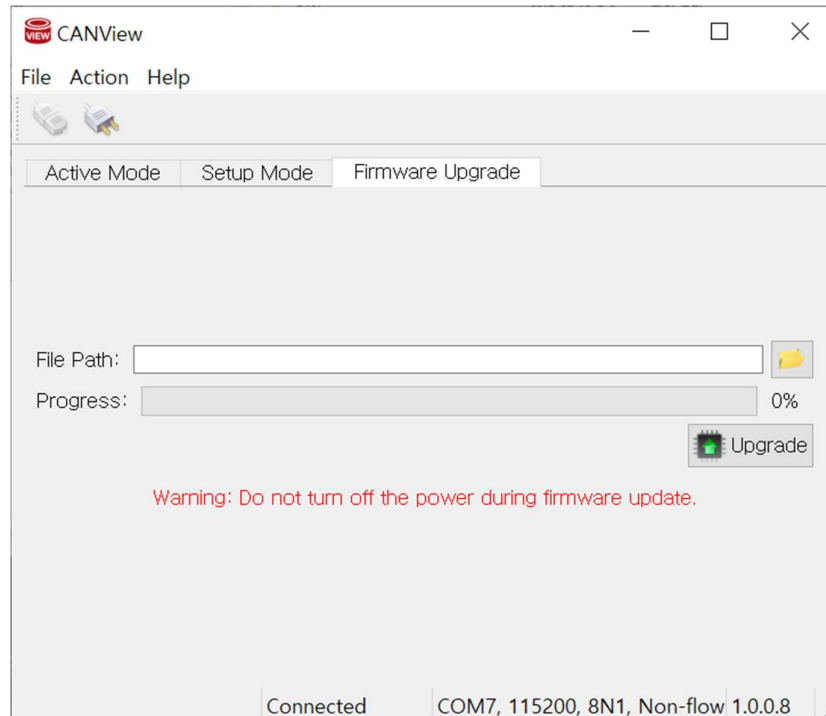
Reverts to its previous values

※ Please do not use same header values for all four headers. They are case sensitive.

Firmware Upgrade

You can update or upgrade the firmware to different version.

※ Disconnecting the cable or turning off the device during the upgrade can cause the device to malfunction.



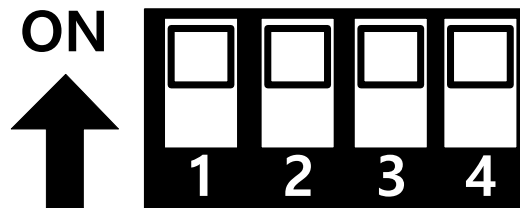
Menu	Description
File Path	Browse for file path
Progress	Displays process of the update
Upgrade	Start updating the firmware

5. Appendix

Switch Settings

By using the switch on the bottom of sCAN V1.0 and uCAN V3.0, power supply availability and operational mode can be selected, and terminating resistors can be turned on or off.

※ To change settings for sCAN and uCAN, you need to change the third switch on the bottom of the product to off or 'Setup' mode. After configuration is done, click the [Apply] button, then change the switch to on or 'Active' mode to apply the configuration.



Number	Status	Description	
		uCAN V3.0	sCAN V1.0
Switch 1	ON	Use CAN side VDD for power (default)	
	OFF	VDD is disconnected	
Switch 2	ON	Use USB VBUS for power	Use pin#9 (RS-232) for power
		(default)	
Switch 2	OFF	USB VBUS is disconnected	Pin#9 is disconnected
Switch 3	ON	Active Mode (default)	
	OFF	Setup Mode	
Switch 4	ON	Enable terminating resistor (120Ω) (default)	
	OFF	Disable terminating resistor	

6. Troubleshooting

Problem: When uCAN V3.0 is connected to the computer, an assigned serial port number is duplicate with other.

Solution: Remove or uninstall USB driver for the product then install it again.



If you have any inconvenience while using the product, please contact us.

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