

396-4512Y1 - Sentinel ECU Programming Instructions

This document explains everything related to updating the software on a Sentinel ECU. The first section explains how to install on your laptop the software necessary to perform the update. The last section explains the actual ECU software update procedure.

First, download the software from the links below. The first link is for the software used to prepare your laptop to load the Sentinel ECU Software. The second link goes to the page where the ECU Software can be found. All ECU Software versions are available. Locate the highest version (the current release version) and click to download it. The Sentinel software file will have a **.hex** extension. The third link is for the Peak (PCAN) driver. These files are located under the *Software Update* heading on the Sentinel page on the SurePoint support site.



Sentinel ECU Level 2 - 3CM



Sentinel ECU Level 1 - 3CS

Download these to your laptop or to a USB Drive. Downloading to a USB drive may make it easier to locate the files you need.

- 1) https://support.surefireag.com/media/documents/SENTINEL_ECU_PROGRAMMING.zip
- 2) <http://support.SurePointag.com/products/346> Go to **Software Update**. Be sure to select the software for the ECU you have (see pictures above).
- 3) <https://support.surefireag.com/media/documents/PeakOemDrv.exe>

Setting up the Update Software on your Laptop

First time installs

- 4) Install **PeakOemDrv (Application)** (should have this downloaded to USB or computer)

	Sentine VT_L1_3CS_V131	9/7/2022 10:21 AM	Intel HEX binary d...
	Sentine VT_L2_3CM_V131_bUFNBzj	9/7/2022 10:21 AM	Intel HEX binary d...
	4 PeakOemDrv Double-click	9/7/2022 10:21 AM	Application
	SENTINEL_ECU_PROGRAMMING	9/7/2022 10:14 AM	Compressed (zipp...

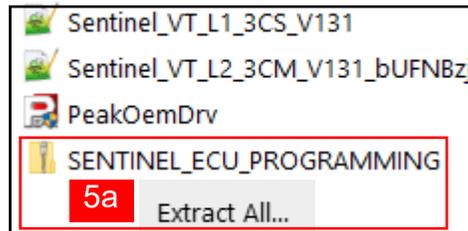
- a.) Next
- b.) I accept the terms... Next
- c.) Next
- d.) Install
- e.) Finish

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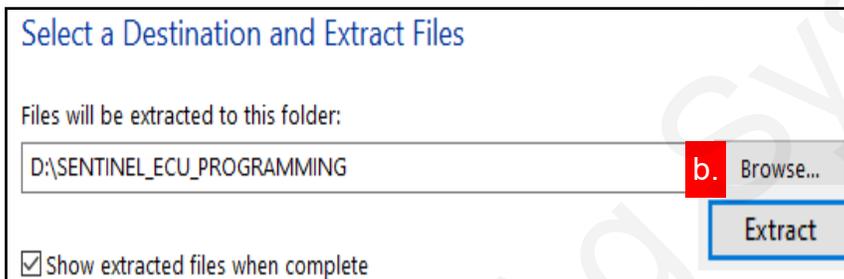
Setting up the Update Software on your Laptop

5.) Extract the files from the **Sentinel ECU Programming.zip** file

a. Right click on **Sentinel ECU Programming.zip** file and select **Extract All**

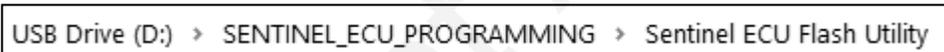


b. Use the recommended folder or *Browse* to change. **Extract**



6.) Install **Sentinel ECU Flash Utility**

a.) **Open Sentinel ECU Flash Utility Folder**



b.) **Run Setup (Application)**



i) Press **Yes** if a pop-up pops up.

ii) Select **Next**

iii) Press **Next**

iv) Press **Yes**

v) Press **Next**

vi) Press **Next** (Typical)

vii) Make sure **PEAK-System GmbH CAN Interface** is selected. Press **Next**.

viii) Press **Yes** on popup

ix) Press **OK > Next**

x) **I agree to accept... Next**

xi) **English Next**

xii) Press **Next > Next > Finish > OK**

Your responses will essentially be **Next, Yes, or OK** for the typical installation.

You will need to type in **SurePointNet** in this step (see xiv.) and later in configuring WinFlash (page 4).

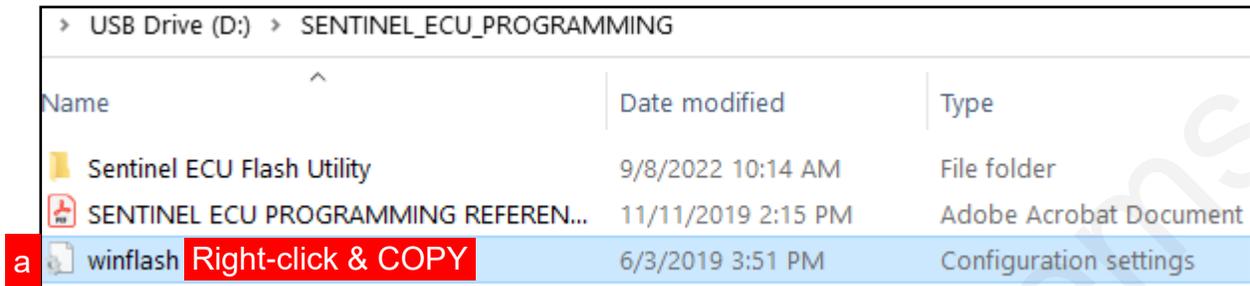
xiii.) Verify **PCAN USB > Next**

xiv.) Select name of CAN network > type in **SurePointNet > Next**.

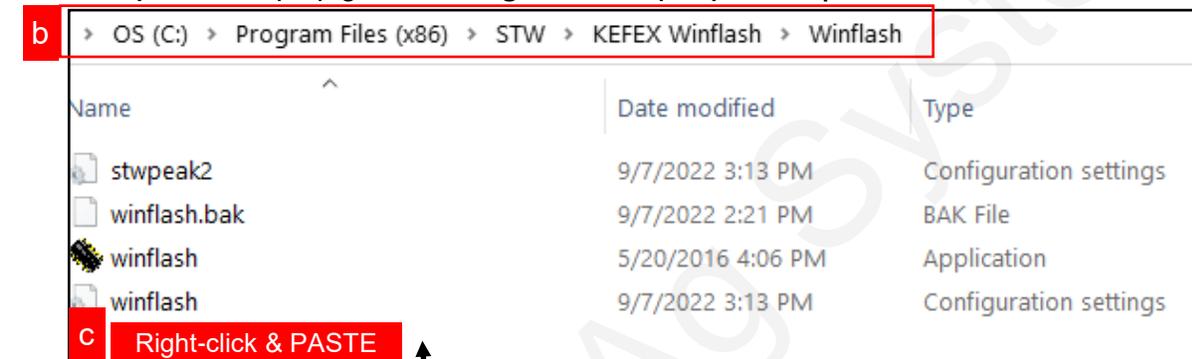
xv.) **OK**

7. Copy **winflash.ini** file

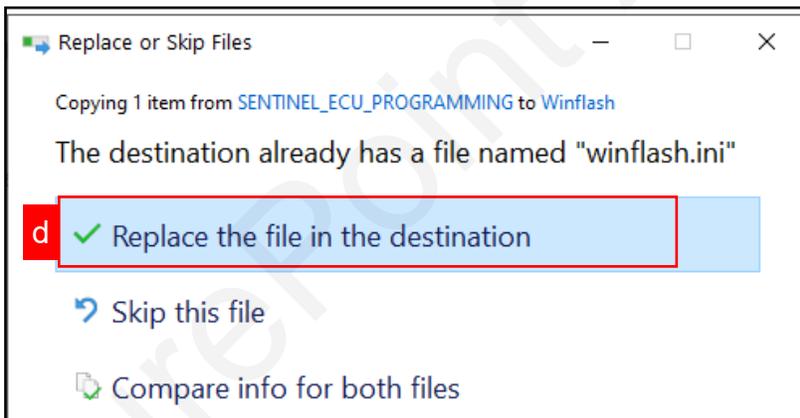
- a. On the USB Drive or laptop open the **ECU Programming Software** file that you downloaded and unzipped. Right-click and copy the **winflash (Configuration Settings)** file.



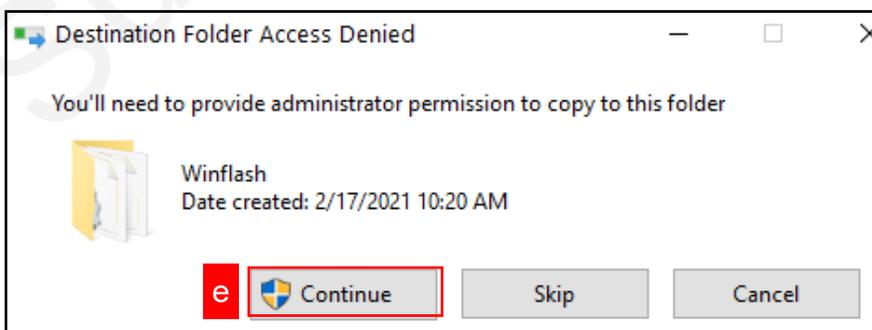
- b.) On the laptop go to **C:\Program Files (x86) \ STW | KEFEX Winflash \ Winflash.**



- c.) Right-click in this folder and PASTE.



- d.) Replace the file in the destination.



- e.) If this message appears, press CONTINUE.

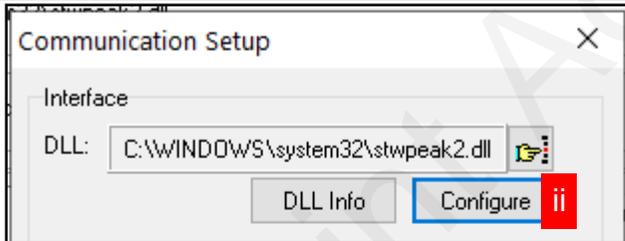
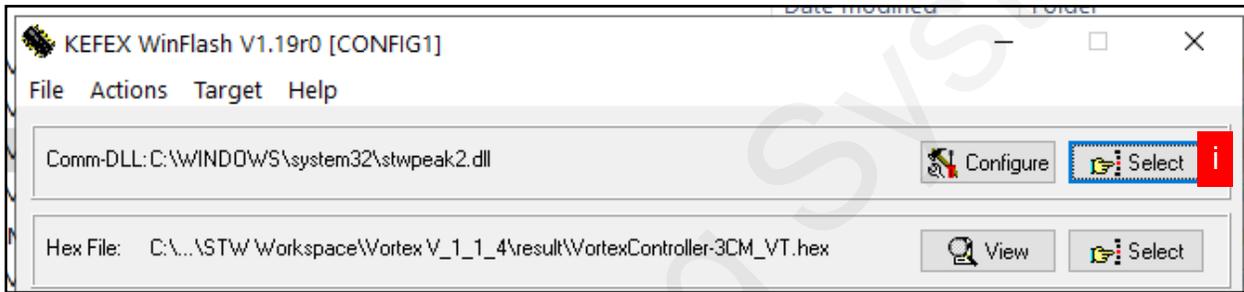
8.) Plug the CAN Module into the computer and let the drivers install (may take a minute or two). You should get a red light on the PEAK module.

a. It will not look like the computer is doing much, but give it a minute to install the drivers. You may get a message in the bottom left corner that says Device Installed. If this message does not appear, proceed to the next step after a minute.

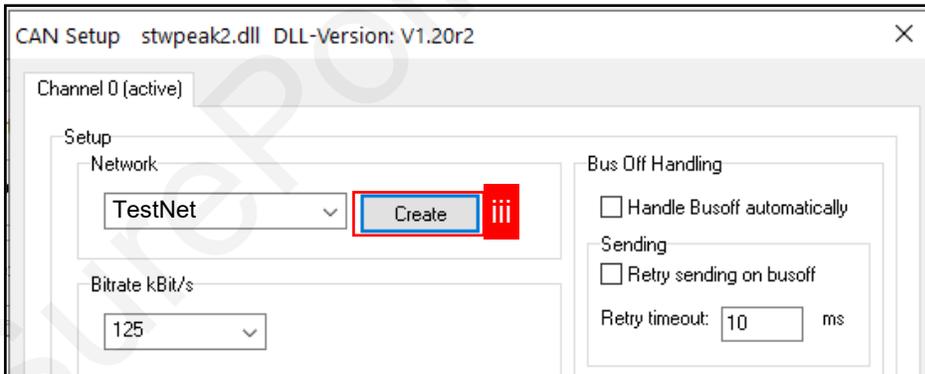
b. Run **WinFlash (application)**. Right-click on **WinFlash (Application)** and select **Run as Administrator**.



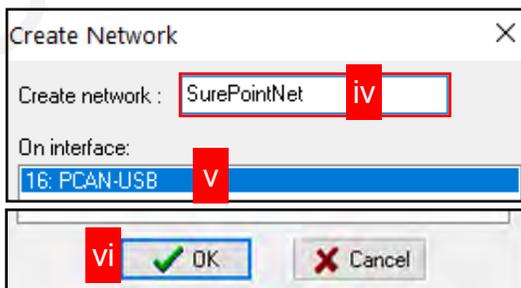
i) Press **Select** in top right corner of the screen.



ii) Press the top **Configure** button.



iii) Press **Create**

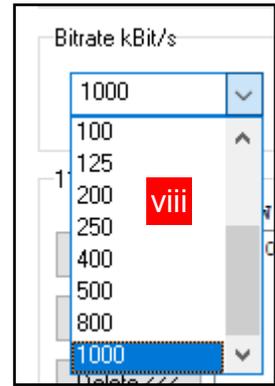


iv) Type **SurePointNet** in the Create Network box.

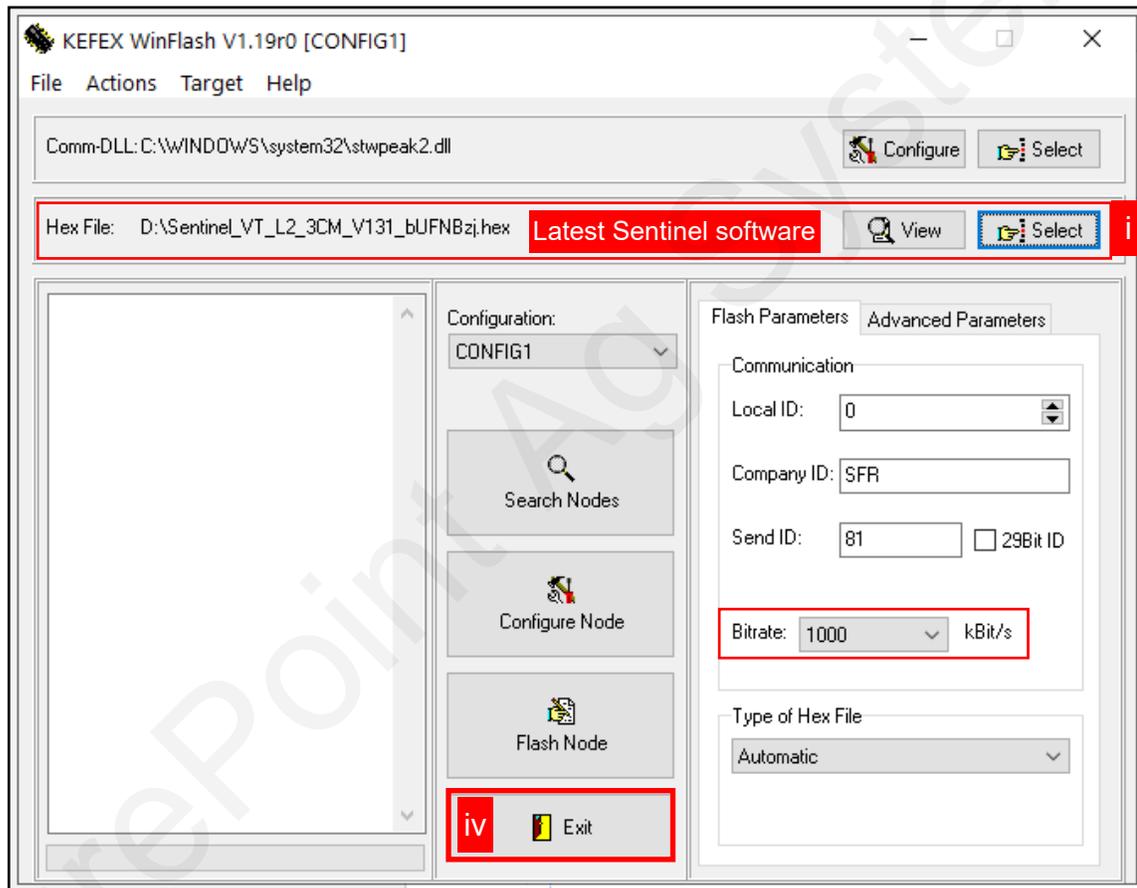
v) Verify Device listed (PCAN-USB) in the On Interface box.

vi) Press OK.

- vii) Press OK
- viii) Set **Bit Rate = 1000**
- ix) Press OK to go back to Setup
- x) Press OK to go back to Main Screen



- c.) Set up the new Software Version file
 - i) Press 2nd-from-top **Select** on Hex File line.
 - ii) Find the Sentinel HEX file on the USB drive or the folder on your computer.
 - iii) Press OK or OPEN to select the HEX file.



- iv) Press **Exit**.
- The computer should be set up.

See **Updating the Sentinel ECU** on the next page.

Updating the Sentinel ECU

- 1.) Make sure that the PCAN programming adapter is plugged into the USB on your computer.



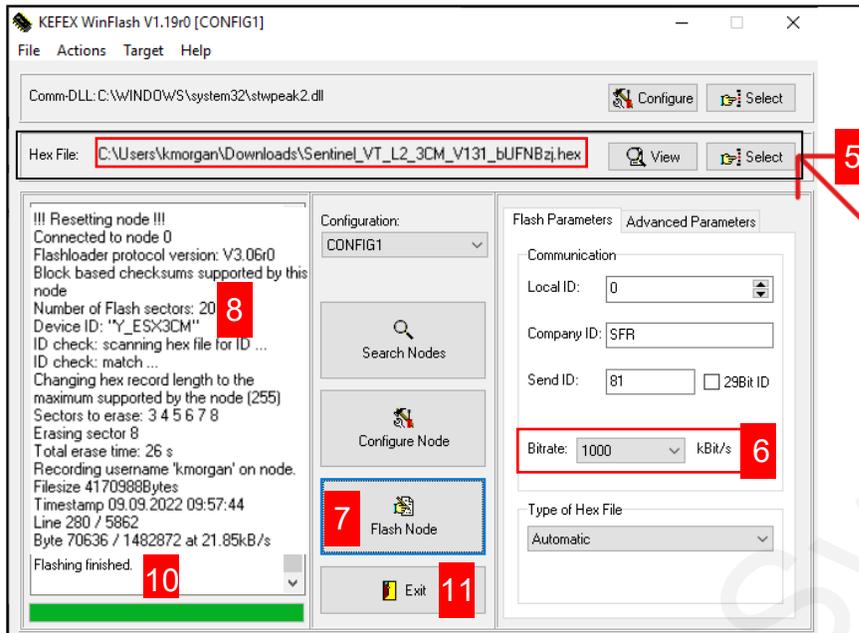
- 2.) Be sure the Sentinel ECU is powered on (2 green lights by harness connector).
- 3.) Find the **Program** Connector on the ECU Harness. It is a 4-pin Deutsch connector. Connect the programming adapter cable (212-02-3579Y1) between the PCAN USB adapter and **Program** connector on the ECU Harness



- 4.) Run **WinFlash App** on the laptop. (Type WinFlash in the search box to find)



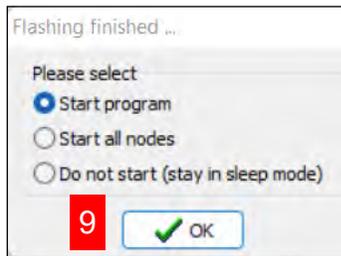
5.) Verify or select correct Hex File. This file should be the latest Sentinel ECU software from the SurePoint website.



6.) Verify **Bitrate** is **1000**.

7.) Press **Flash Node**

8.) Should see **Resetting Node > Erasing Sectors > various Programming Information**.



Flash process will take a minute or two. Wait...

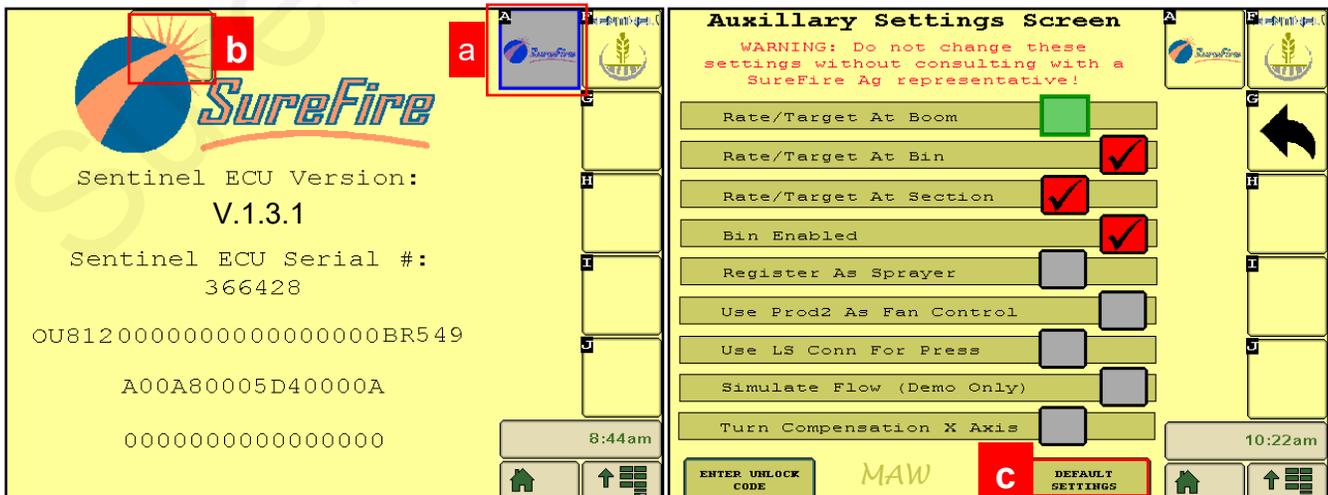
9.) Press **OK** at the end to **Start program**

10.) Bottom line of flash update should say **Flashing finished**.

11.) Press **Exit**, then press **OK** on screen that pops up.

The next step will reset the Sentinel to Default Settings. This will delete anything you have set up in the Sentinel. If necessary, take some pictures of the Sentinel setup screens before restoring Default Settings. (Not necessary for all updates, depends on versions from/to.)

12.) On the Sentinel screen restore the system to **Default Settings**. Press (a) Sure(Fire)Point Logo icon > press on (b) Sunburst > Auxilliary Settings Screen > (c) **Default Settings**. **OK**



Other Sentinel Resources

[Sentinel support site](https://support.surepointag.com/products/346) <https://support.surepointag.com/products/346>

- Product Manuals
- ECU Software Update
- Videos
- Harness Drawings
- Support Bulletins

396-4035Y1 Sentinel Liquid Row Monitor and Rate Control Manual

396-5477Y1 Sentinel Row Control Manual

396-4953Y1 Manual for PumpRight System using Sentinel Rate Control

396-4954Y1 Manual for Tower System using Sentinel Rate Control

[SurePoint Liquid Applications on the web](https://support.surefireag.com/product_categories/17) https://support.surefireag.com/product_categories/17

396-4608Y1 Gen3 LiquiShift Manual

396-4034Y1 PumpRight Pump Manual

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