#### 1. How do I flash my SAINT2 unit?

- i. First download the latest SAINT2 firmware from the SAINT2 "Software (Downloads)" page. Unzip this file to your desktop.
- ii. Open your SAINT Bus Engine 2 program and make sure the port to your SAINT2 is open and selected (see below).

Sai	nt Bus En	gine 2						
File	Plug-Ins	ReFlash At	oout					
	Device	Baud Rate	Status	Bus Type				
1 2	COM1 COM2	57600 57600	Closed Closed					
3	FTDI1313	57600	Open	Saint2 Functional Block v002.005.000				
D								
Device Info     FTDI1313     Connected Clients								
Bau	ud Rate				✓ Port Open Hide			
1971	000				Apply			

- iii. Next, open the SAINT2 Flash program by selecting the "SAINT 2" option under the "Reflash" menu option on the SAINT Bus Engine 2 menu.
- iv. Make sure you have the correct device selected in the Device List and press the "Load Hex" button. Select the SAINT2 firmware you downloaded above.
- v. Press the "Program" button to start the reflash process (see below).

🎢 SAINT2Flash Tool (	\$2_v002_005_000_PB.s2f)	$\mathbf{X}$							
File Help									
The	'SAINT 2								
Reflash Tool									
Overall Progress:									
888									
,									
- Memory Block: 2-									
Memory Block: 2 Erase Progress: E	rasing								
Memory Block: 2 - Erase Progress: E	asing								
Memory Block: 2 Erase Progress: E Write Progress:	Erasing								
Memory Block: 2 - Erase Progress: E Write Progress:	Trasing								
Memory Block: 2 Erase Progress: E Write Progress: Device List	Beflash Status Information								
Memory Block: 2 Erase Progress: E Write Progress: Device List FTDI1313	Reflash Status Information								
Memory Block: 2 Erase Progress: E Write Progress: Device List FTDI1313	Reflash Status Information								
Memory Block: 2 Erase Progress: E Write Progress: Device List FTDI1313 •									

#### 2. Why can't I update my Saint2 unit with the Saint2Flash application?

Make sure that you have the latest release of the Saint2Flash software as well. Due to an increasing number of new features in the Saint2 firmware, necessary changes have been made to the Saint2Flash application which mean that older versions of the plugin may no longer work.

# 3. Why does the Saint2 send out continuous error messages when I send a CAN message?

The CAN controller on the Saint2 sends error messages out when no response is received while sending a message. Therefore, if a product is not powered up while a CAN message is sent then the continuous error message stream will be seen.

#### 4. How do I install the USB driver for the Saint2?

The USB driver from the Saint2 webpage needs to be downloaded and unzipped onto the PC where the Saint2 will be run. Next, plugin or power up the Saint2 device at which point Windows will popup notification that a new device has been found. When it asks where to look for the driver, direct it to the downloaded and unzipped folder that contains the USB Saint2 driver.

## 5. My SAINT2 is not showing up in the SAINT Bus Engine 2 or the SAINT2 USB driver is not showing up correctly.

This problem can be resolved by first uninstalling the SAINT2 USB driver and then re-installing the USB

- driver. This requires the removal of some important registry keys that identify the SAINT2 by VID and PID.
  i. Assuming you have installed the SAINT2 Bus Engine, open the file "FTDIUNIN.EXE" located in your SAINT2 Bus Engine path (usually C:/Program Files/Saint Bus Engine 2/Drivers/FTD2XX). Make sure
  - SAINT2 Bus Engine path (usually C:/Program Files/Saint Bus Engine 2/Drivers/FID2XX). Make su your SAINT2 USB cable is disconnected and press the "Continue" button (see below).

f your USB device is co	nnected, please u	nplug it now
ress Continue to unins	all the drivers, or	Cancel to quit.
ress continue to unins	an die unvers, or	cancer to quit.

ii. If you get the Error "ftdiun2k.ini not found" then you must copy the FTDIUN2K.INI file to the above mentioned folder and re-run the "FTDIUNIN.EXE" (see below). This is a known bug in the uninstaller. The uninstaller "deletes" the ftdiun2k.ini each time after running the uninstall program. So you must copy this file into the driver directory before running the uninstaller.

FTDI U	ninstaller	
	Frrar frdiun2k ini nat found	
	Press Finish to exit.	
	Continue Finish	

iii. Next, connect the SAINT2 USB cable (assuming you also have power applied) to your pc. When prompted, browse to the USB driver folder (usually C:/Program Files/Saint Bus Engine 2/Drivers/FTD2XX) and allow Windows to install the drivers.

iv. You can verify the drivers were intstalled correctly by opening your Windows Device Manager and seeing the "Saint 2 Device" located under the Universal Serial Bus controllers tree.



6. My Saint2 works fine with the supplied cable. However, I made my own cable for the Saint2. With my own cable I can't get Class 2 to work. Why is that? You probably have wires connected to pin 18, 19, 20 or 21. These pins are connected directly to the SPI lines between the main micro and the DLC that handles Class 2 communications. External connections on any of these pins are price and the SPI have ord armitistic the Class 2 data. Simplify disconnections on any of these pins are price and the SPI have ord armitistic the Class 2 data. Simplify disconnections on any of these pins are price and the SPI have ord armitistic the Class 2 data.

pins causes noise on the SPI bus and corrupts the Class 2 data. Simply disconnect any wires on pins 18 thru 21. Class2 should work normally.

# 7. Why can't I see my SAINT2 plugins show up in the SAINT Bus Engine 2 Plugins menu?

It is recommended you first uninstall all older SAINT (original) plugins and Bus Engine. Also, make sure you pay close attention to the install path when installing plugins. The install path should show "SAINT Bus Engine 2/plugins" and not "SAINT Bus Engine/plugins" (see correct path below).

🗗 Setup - Universal Memory Editor 2	
Select Destination Location Where should Universal Memory Editor 2 be installed?	
Setup will install Universal Memory Editor 2 into the following folder.	
To continue, click Next. If you would like to select a different folder, click Browse.	
C:\Program Files\SAINT Bus Engine 2\plugins Brows	e
At least 3.6 MB of free disk space is required.	
< <u>B</u> ack <u>N</u> ext >	Cancel

### 8. Are the SAINT2 CAN channels protected for short to battery?

All SAINT2 CAN channels brought out to the DB25 connector except HSCAN2 (pins BArT\_CANH and BArT\_CANL) are protected for short to battery.

# 9. Are the USB or RS-232 ports on the SAINT2 electrically isolated from the other external connections to the SAINT2?

**NO.** The USB and RS-232 grounds are internally interconnected to the SAINT2 cable ground, which is the ground connection for the power to the SAINT2 as well as the CAN and other data signal reference ground. If a PC or other device which is connected to the SAINT2 through the USB or RS-232 port is at a different ground potential than the SAINT2 cable ground, then ground current WILL flow through the SAINT2 and there is a risk of permanent damage to the SAINT2 or a connected PC or other device. Please make certain that you do not have any ground current flow through the SAINT2 USB or RS-232 connections.

#### 10. Why doesn't my passcode work?

Make sure that the exact sequence of characters is entered into the Saint2Flash application including spaces around the hyphen.