

## **USBCAN II Device Update**

This process requires a Windows 10 computer. MAC users will need to run on a virtual machine.

Please follow these steps to update the eFlex firmware:

- 1. Go to www.fortresspower.com/resources/ and download
  - a. eFlex Firmware Update
  - b. eFlex BMS USB CAN Software
  - c. eFlex USBCanbox Drivers
  - d. eFlex CANTest Software (download this only if CAN connection cannot be made)
- 2. Cut off the end of an ethernet cable and attach pins 1+2 (white-orange / orange typ.) to the high and low ports of the RJ45-to-serial adapter.
- Plug in the USBCANII tool into to the PC. Plug the Serial-RJ45 adapter into CAN1 port on the USBCANII tool.

		Pin	Color	Assignment
	-	1	White Orange	CAN1_H
	N	2	Orange	CAN1_L
	ω	3	White Green	RS485A2
The state of the state of the state of the	4	4	Blue	CAN2_H
	U I	5	White Blue	CAN2_L
	6	6	Green	RS485B2
	7	7	White Brown	RS485A1
	00	8	Brown	RS485B1

- 4. Follow the instructions on pages 2-4 to install the device drivers
- 5. Disconnect the eFlex from the battery inverter. Disconnect one battery terminal from each eFlex.
- 6. Connect the CANbox (CAN1 port) to the eFlex. A CANbus terminator needs to be on the other end of the communication chain. You can view multiple eFlex at the same time within the tool.
- 7. Open the BMS CAN Software and connect to the eFlex as shown in pages 5-6.
  - a. If it does not connect, install the eFlex CANTest software. This will install additional drivers you do not use this software. Most users will not need to install the CANTest software.
- 8. Please refer to our Youtube channel for a video walk-through of updating eFlex firmware
  - a. Video is titled: "How to update your eFlex firmware using the CANbus tool" <u>https://www.youtube.com/watch?v=r9wpqPMGkgU</u>



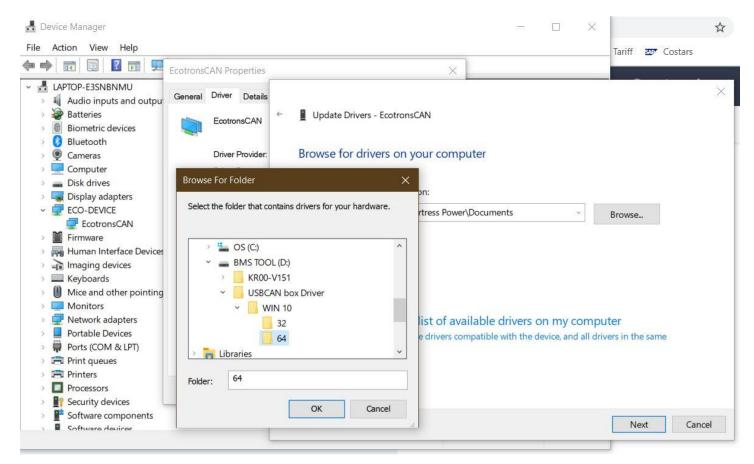
## To install the drivers for the BMS Tool/Canbus communicator, please follow these steps:

Plug in your USBCANII device via USB to your computer and enter the device manager. Without the drivers, the PC may recognize the device as ECO-Device, as shown below.

🖁 C	evice Manager —	×
File	Action View Help	
( <b>-</b> -		
~ .	LAPTOP-E3SNBNMU	
>	🖣 Audio inputs and outputs	
>	Batteries	
2	Biometric devices	
>	8 Bluetooth	
5	Cameras	
>	Computer	
3	Disk drives	
>	Signal Display adapters	
()	ECO-DEVICE	
5	Firmware	
>	Human Interface Devices	
>	- Imaging devices	
3	Keyboards	
2	II Mice and other pointing devices	
>	Monitors	
>	🖵 Network adapters	
>	Ports (COM & LPT)	
>	🛱 Print queues	
)	🚍 Printers	
>	Processors	
>	Security devices	
>	P Software components	
3	Software devices	
>	Sound, video and game controllers	
	Gen Storage controllare	

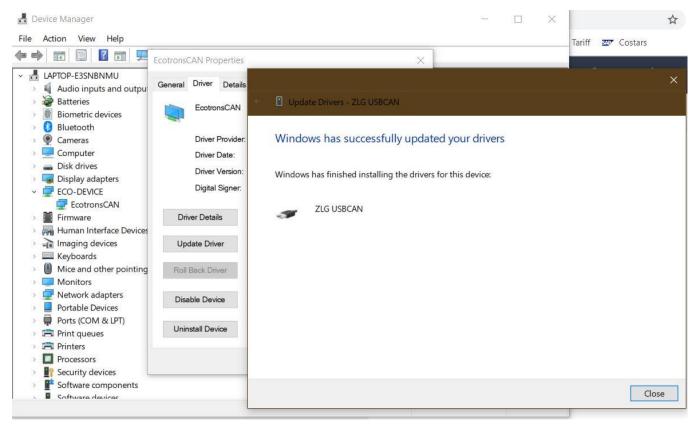


Double click on the EcotronsCAN icon, select the "Driver" tab, and click "Update Driver" This will prompt you to browse your PC for the drivers. Select "Browse" and navigate to the USB drive, open WIN 10, and 64 (assuming your computer is 64-bit) and click "OK" and then "Next"





You should see the following screen appear, acknowledging the updated drivers. You can then navigate into the USB drive and open the "BMS" application.





📰 BMS-V1.51  $\times$ **Communication Configuration** Parameters Setting Record Export Data Language Select Basic informa Basic information Basic information Basic information Battery ID -Battery ID Battery ID Battery ID Qty\_Batt -Qtv Batt Qty Batt Qty\_Batt Unit Voltage -Unit Voltage E UI Language Select  $\times$ Unit Current -Unit Current Unit SOC -Unit SOC Charge Relay Status -Charge Relay Status Discharge Relay Status -Discharge Relay Status Language Pre-charge Relay Status -Pre-charge Relay Status System Average Voltage -System Average Voltage System Unit Quantity -System Unit Quantity Battery Parallel Status -Battery Parallel Status O Chinese Insulation resistance -Insulation resistance Pre\_Volt(V) Pre\_Volt(V) -Max Cell Volt(mV) -Max Cell Volt(mV) English Max Cell Volt Num -Max Cell Volt Num Min Cell Volt(mV) Min Cell Volt(mV) Min Cell Volt Num -Min Cell Volt Num Max Temp(°C) -Max Temp(°C) Max Temp Num -Max Temp Num Min Temp(°C) -Min Temp(°C) ок Min Temp Num -Min Temp Num Software Version -Software Version Hardware Version -Hardware Version Alarm Level -Alarm Level Cycle Counts Cycle Counts -Balance Volt(V) -Balance Volt(V) Discharge Energy(kWH) Discharge Energy(kWH) Discharge Energy(kWH) -Discharge Energy(kWH) UPS Manufacturer UPS Manufacturer -UPS Manufacturer UPS Manufacturer 01 Detail 02 Detail 03 Detail 04 Detail Update Update Update Update State

## First, click "Language Select" and select English



Next, select "Communication Configuration" and click "Connection CAN" to begin connection. You should be able to keep the default values that come up on screen and make a connection.

BMS-V1.51 — 🗌 🖸						
Basic information	Basic information	- Basic information	Basic information			
Battery ID -	Battery ID -	Battery ID -	Battery ID -			
Qty_Batt -	Qty_Batt -	Qty_Batt -	Qty_Batt -			
Unit Voltage -	Unit Voltage	Linit Voltage	Unit Voltage -			
Unit Current -	Communication Configuration	×	Unit Current -			
Unit SOC -	communication conniguration	~	Unit SOC -			
Charge Relay Status -			Charge Relay Status -			
Discharge Relay Status -			Discharge Relay Status -			
Pre-charge Relay Status -	Choose CAN Device	BCAN2\USBCAN2A	Pre-charge Relay Status -			
System Average Voltage -			System Average Voltage -			
System Unit Quantity -			System Unit Quantity -			
Battery Parallel Status -			Battery Parallel Status -			
Insulation resistance -			Insulation resistance -			
Pre_Volt(V) -	CAN Channel 0	CAN Channel 0 ~				
Max Cell Volt(mV) -			Pre_Volt(V) - Max Cell Volt(mV) -			
Max Cell Volt Num -			Max Cell Volt Num -			
Min Cell Volt(mV) -			Min Cell Volt(mV) -			
Min Cell Volt Num -			Min Cell Volt Num -			
Max Temp(°C) -	CAN Baud Rate 25	ок ~	Max Temp(°C) -			
Max Temp Num -			Max Temp Num -			
Min Temp(°C) -			Min Temp(°C) -			
Min Temp Num -			Min Temp Num -			
Software Version -			Software Version -			
Hardware Version -	Disconnect CAN	Connection CAN	Hardware Version -			
Alarm Level -			Alarm Level -			
Cycle Counts -			Cycle Counts -			
Balance Volt(V) -	Balance Volt(V) -	Balance Volt(V) -	Balance Volt(V) -			
Discharge Energy(kWH) -	Discharge Energy(kWH) -	Discharge Energy(kWH) -	Discharge Energy(kWH) -			
UPS Manufacturer -	UPS Manufacturer -	UPS Manufacturer -	UPS Manufacturer -			
01 Detail	02 Detail	03 Detail	04 Detail			
Update	Update	Update	Update			
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tate						

If you cannot make a connection:

- Install the eFlex CANTest Software from the Fortress Power website. Do not use this software the software installation process will include additional drivers that your computer may need to make the CAN connection. Restart the computer after installation and try again to make a CAN connection using the original BMS CAN software.
- Check the cables on the RJ45->serial connector. Remake the ends and reinstall on the connector if necessary.
- 3) Use a Windows 10 computer.