

SOFTWARE UPDATE GUIDE

Portable Ultrasonic Flowmeter FSC Instructions for Updating for Windows 8.1 / 10

INF-TN5A3630-E

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This instructions explain how to update your transmitter and the parameter loader software for Windows 8.1 / Windows 10.

The flow transmitter is implemented with the USB device controller LSI. Overwriting the product ID (PID) in the LSI memory by using USBXpress Device Customization Utility allows the transmitter to support Windows 8.1 / 10. By using the parameter loader software, you can check if the USB communication is made available.

1. Target transmitter versions

Portable ultrasonic flowmeter transmitter, revision 1 and revision 2 8th code: $FSC\square\square\square1$, $FSC\square\square\square2$

2. Important notice

• The update shall be performed on your own responsibility.

• If you fail to update, the flowmeter may not be able to communicate with PC. In such a case, the flow transmitter need to be repaired. Contact the distributor you purchased the transmitter.

3. Items required

- Download the updater file from our website:
 - www.fujielectric.com/products/instruments/software/ultra.html
- Transmitter
- USB cable provided with the transmitter
- PC OS: Windows 7 / 8.1 / 10
 - With USB 2.0 port

4. Instruction manual

The instruction manual of the PC loader software for Windows 8.1 and Windows 10 can be downloaded from:

www.fujielectric.com/products/instruments/

5. Updater files

Open the downloaded file **FSC3_Loader_Win10_ENG.zip**. The file will be decompressed and the folder **FSC3_Loader_Win10_ENG** appears.



Figure 1 Updater files

FSC3_Loader_Win10_ENG contains the following four items:

📙 🕑 📙 🗢 FSC3_Loader_Win10_ENG	3		_	ПХ
File Home Share View				~ 🕐
\leftarrow \rightarrow \checkmark \uparrow \square \rightarrow This PC \rightarrow Down	nloads > FSC3_Loader_Win10_ENG >	ٽ ~	Search FSC3_Loader_V	Vin10_E 🔎
This PC	Name	Date modified	Туре	Size
Desktop	CP210x_USBXpress_Drivers_v6_7_2	3/12/2018 3:58 PM	File folder	
Documents	CP210x_VCP_Drivers_v6_7_5	3/12/2018 3:58 PM	File folder	
Downloads	🛃 FSC_Setup_ENG	10/24/2017 5:01 PM	Windows Installer	2,029 KB
b Music	🚟 install_USBXpress_SDK	3/9/2018 1:06 PM	Application	192,325 KB
E Pictures				
🗃 Videos				
🏪 Local Disk (C:)				
Removable Disk (E:)				
🚘 Removable Disk (E:)				
CRC Y	<			>
4 items				

Figure 2 FSC3_Loader_Win10_ENG

FSC_Loader_Win10_ENG	Name
CP210x_VCP_Drivers_v6_7_5	CP210x VCP driver installer
CP210x_USBXpress_Drivers_v6_7_2	CP210x USBXpress driver installer
Install_USBXpress_SDK.exe	USBXpress Device Customization Utility installer
FSC_Setup_ENG.msi	Installer package of the parameter loader software for Windows 8.1 and Windows 10.

6. Workflow summary

Notes

- Do not connect the transmitter with your PC yet.
- Turn off the transmitter.
- Step 1: Install the CP210x VCP driver: CP210x_VCP_Drivers_v6_7_5.
- Step 2: Install the USBXpress Device Customization Utility: install_USBXpress_SDK.exe
- Step 3: Install the CP210x USBXpress driver: **CP210x_USBXpress_Drivers_v6_7_2**
- Step 4: Install the Parameter loader software: FSC_Setup_ENG.msi
- Step 5: Detection of the CP210x VCP driver Connect the transmitter and PC with the USB cable. Found New Hardware Wizard starts and detects the CP210x VCP driver. Check that the driver is added to the device manager.
- Step 6: Overwriting the PID on the USB device controller LSI by using the USBXpress Device Customization Utility
- Step 7: Check of USB communication Turn on the flowmeter and make sure the measurement screen appears. Start the parameter loader software and check the communication status.
- Step 8: Update complete
 - If you want to update another transmitter, repeat the steps from 7.2.
 - If you want to finish, uninstall the applications.

The following pages gives you the detailed instructions for each steps.

Step 1. Installation of CP210x VCP driver

 In CP210x_VCP_Drivers_v6_7_5 folder, open CP210xVCPInstaller_x64 or CP210xVCPInstaller_x86. When the operation system is 64-bit version, open CP210xVCPInstaller_x64. When the operation system is 32-bit version, open CP210xVCPInstaller_x86.

📙 🛃 📑 🗧 CP210x_VCP_Drivers_	v6_7_5		-	\Box ×
File Home Share View				~ 🕐
$\leftarrow \rightarrow \checkmark \uparrow$ _ « FSC3_Loader_	Win10_ENG > CP210x_VCP_Drivers_v6_7_5 >	5 V	Search CP210x_VCP_	Drivers_v 🔎
💻 This PC	^ Name	Date modified	Туре	Size
Desktop	x64	3/12/2018 3:58 PM	File folder	
Documents	x86	3/12/2018 3:58 PM	File folder	
	SCP210xVCPInstaller_x64	9/27/2017 12:58 PM	Application	1,026 KB
Musia	SCP210xVCPInstaller_x86	9/27/2017 12:58 PM	Application	903 KB
	📄 dpinst	9/27/2017 12:45 PM	XML Document	12 KB
Pictures	SLAB_License_Agreement_VCP_Windows	9/27/2017 12:46 PM	Text Document	9 KB
📑 Videos	slabvcp	10/10/2017 12:52	Security Catalog	11 KB
🏪 Local Disk (C:)	slabvcp	10/10/2017 12:52	Setup Information	15 KB
🛖 Removable Disk (E:)	v6-7-5-driver-release-notes	10/16/2017 5:49 PM	Text Document	14 KB
🛖 Removable Disk (E:)				
CRC CRC	v <			>
9 items				

Figure 3 Installers

2) If the **User Account Control** dialog box appears, click **Yes** to enable the installation.



Figure 4 User Account Control Wizard

 CP210x USB to UART Bridge Driver Installer Wizard starts. Click Next. If you want to stop installation, click Cancel. (The same shall apply hereafter.)



Figure 5 Installation wizard

4) Install the CP210x USBXpress driver: CP210x_USBXpress_ Drivers_v6_7_2



Figure 6 Installing

5) Click Finish.

CP210x USB to UART Bridge Driver Installer			
	Completing the Ins CP210x USB to UA	stallation of the .RT Bridge Driver	
	The drivers were successfully in	stalled on this computer.	
	You can now connect your devi came with instructions, please re	ice to this computer. If your device ead them first.	
	Driver Name	Status	
	V Silicon Laboratories Inc	Ready to use	
	< Back	Finish Cancel	

Figure 7 Completing the Installation

Step 2. Installation of the USBXpress Device Customization Utility

1) In FSC3_Loader_Win10_ENG folder, open install_USBXpress_SDK.



Figure 8 Installers

- 2) If the User Account Control appears, click Yes to enable the installation.
- 3) Preparation starts.

InstallAnywh	iere	
451	InstallAnywhere is preparing to install	
	21%	
		Cancel
(C) 2012 Flex	era Software LLC	

Figure 9 Preparation

4) Important Information dialog box appears. Read the information and then click Next.



Figure 10 Important information

5) License Agreement dialog box appears. If you agree, click "I accept the terms of the License Agreement" and then click "Next".

If you disagree, click "Cancel" to quit the process.



Figure 11 License agreement

6) **Select Installation Folder** dialog box appears. If you install the software into the default installation folder, click **Next**.



Figure 12 "Select Installation Folder" dialog box

7) **Pre-Installation Summary** dialog box appears. Review the information and click **Install**.

USBXpress Software Developme	nt Kit 4.0.3.0 —	×
	Pre-Installation S	ummary
	Please Review the Following Before Continuing:	
	Product Name: USBXpress Software Development Kit Install Folder: C\SiliconLabs\MCU	
SILICON LABS	Shortcut Folder: C:\Users\fe\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Silicon Labs\USBXpress Software Development Kit Disk Space Information (for Installation Target):	
	Available: 487,335,702,528 Bytes	
InstallAnywhere Cancel	Previous	Install

Figure 13 Pre-Installation Summary

8) Installation starts.



Figure 14 Installing

9) Click Done.



Figure 15 Install Complete

10) When the installation is successfully complete, the Silicon Labs is added to the start menu.

Step 3. Installation of CP210x USBXpress driver

1) In CP210x_USBXpress_Drivers_v6_7_2 folder, open USBXpressInstaller_x64 or USBXpressInstaller_x86.

When the operation system is 64-bit version, open **USBXpressInstaller_x64**. When the operation system is 32-bit version, open **USBXpressInstaller_x86**.

📙 🛃 🚽 ╤ CP210x_USBXpress_Dri	vers_v6_7_2		_	□ ×
File Home Share View				~ 🕐
← → • ↑ 🔤 « FSC3_Loader_V	Vin10_ENG \rightarrow CP210x_USBXpress_Drivers_v6_7_2 \rightarrow	ٽ ~	Search CP210x_USBX	press_Dri 🔎
E Desktop	Name	Date modified	Туре	Size
Documents	x64	3/12/2018 3:58 PM	File folder	
🕹 Downloads	x86	3/12/2018 3:58 PM	File folder	
👌 Music	siusbxp	2/3/2017 2:43 AM	Security Catalog	10 KB
Pictures	siusbxp	2/3/2017 2:43 AM	Setup Information	4 KB
Videos	💐 USBXpressInstaller_x64	2/3/2017 2:43 AM	Application	1,026 KB
Local Disk (C:)	💐 USBXpressInstaller_x86	2/3/2017 2:43 AM	Application	901 KB
Removable Disk (E:)				
🛖 Removable Disk (E:)				
CRC CRC				
Doc	· <			>
6 items				

Figure 16 Installers

- 2) If the User Account Control dialog box appears, click Yes to enable the installation.
- 3) Installation Wizard starts. Click **Next**. If you want to stop installation, click **Cancel**.

Device Driver Installation Wizard	
T T	Nelcome to the Device Driver Installation Wizard! his wizard helps you install the software drivers that some omputers devices need in order to work.
	< Back Next > Cancel

Figure 17 Installation wizard

4) Wait until the device driver installation is complete.



Figure 18 Installing

5) Click Finish.

Device Driver Installation Wizard				
	Completing the Dev Installation Wizard	vice Driver		
	The drivers were successfully inst	talled on this computer.		
	You can now connect your devic came with instructions, please rea	e to this computer. If your device ad them first.		
	Driver Name	Status		
	✓ Silicon Laboratories Inc	Ready to use		
	< <u>B</u> ack	Finish Cancel		

Figure 19 Installation Complete

Step 4. Installation of Parameter Loader Software

1) In FSC3_Loader_Win10_ENG folder, click FSC_Setup_ENG.



Figure 20 Installers

2) Setup Wizard starts. Click **Next**.



Figure 21 Setup wizard

3) Select Installation Folder dialog box appears. If you install the software into the default installation folder, click Next.



Figure 22 Select Installation Folder

4) **Confirm Installation** dialog box appears, Click **Next** to start installation.

븅 FSC Loader ENG	_		×
Confirm Installation		5	
The installer is ready to install FSC Loader ENG on your computer.			
Click "Next" to start the installation.			
Cancel < Ba	ack	Nex	t>

Figure 23 Confirm Installation

5) If the **User Account Control** appears, click **Yes** to enable the installation.

6) Installation starts.

븅 FSC Loader ENG	_		×
Installing FSC Loader ENG		F	0
FSC Loader ENG is being installed.			
Please wait			
Cancel	< <u>B</u> ack	<u>N</u> ext >	

Figure 24 Installing

7) Installation Complete dialog box appears. Click Close.

岁 FSC Loader ENG	_		×
Installation Complete		5	0
FSC Loader ENG has been successfully installed.			
Click "Close" to exit.			
Please use Windows Update to check for any critical updates to the .NET	Framew	vork.	
Cancel < <u>B</u> ack		<u>C</u> lo	se

Figure 25 Installation Complete

8) When the installation is successfully complete, **FSC Loader ENG** is added to the start menu and the icon appears on the desktop.

Step 5. Detection of the CP210x VCP driver

- 1) Connect the portable ultrasonic flowmeter to your PC with the USB cable. Found New Hardware Wizard starts and the OS recognizes the CP210x VCP driver.
- 2) To confirm the driver detection, access Control panel > Hardware and Sound > Device Manager. You should be able to see Silicon Labs CP210x USB to UART Bridge in Ports (COM & LPT). If the driver won't show up within a few minutes, disconnect the USB cable and connect it again to detect the driver.



Figure 26 Device Manager

Step 6. Overwriting the PID on the USB device controller LSI

- 1) From the Start menu, select Silicon Labs > USBXpress Software Development Kit > USBXpress Device Customization Utility(AN721)
- 2) USBXpress Device Customization Utility starts. PID (hex) is set to "EA60".

🔹 CP21xx Customization Utility		- 0	×		
File Settings Advanced					
Device Selection					
CP2102 - 0001		∼ Re	efresh		
Device Configuration					
Set IDs					
Property	Default	Value			
VID (hex)	10C4	10C4	\sim		
PID (hex)	EA60	EA60	\sim		
Power (hex)	32	32	\sim		
Power Mode	00 - Bus powered	00 - Bus powered	\sim		
Release Version (Maj., Min.)	0100	0100	$\langle \!\!\!\!\!\!\!\!\!\!\rangle$		
Product Description	CP2102 USB to UART Bridge C	CP2102 USB to UART Bridge C	\sim		
Serial	0001	0001	\sim		
Lock Device	00 - Device is unlocked	00 - Device is unlocked	\diamond		
Baud Rate Alias					
	Program Device				
Status Logging			Ŧ		
			~		
			~		
Log Programming to File:					

Figure 27 USBXpress Device Customization Utility

- 3) Change the value column of PID (hex) to "EA61", and click **Program Device**. Notes:
 - Change the value to "EA61" only. If you set incorrect PID, USB communication fails.
 Change the PID value only. If you change other settings, USB communication fails.

🛸 CP21xx Customization Utility		-		×	
File Settings Advanced					
Device Selection					
CP2102 - 0001			∨ Ref	resh	
Device Configuration					
Set IDs					
Property	Default	Value			
VID (hex)	10C4	10C4		\checkmark	
PID (hex)	EA60	EA61		$\langle \!\!\!\!\!\!\!\!\!\rangle$	
Power (hex)	32	32		$\langle \!\!\!\!\!\!\!\!\!\rangle$	
Power Mode	00 - Bus powered	00 - Bus powered		$\langle \rangle$	
Release Version (Maj., Min.)	0100	0100		$\langle \rangle$	
Product Description	CP2102 USB to UART Bridge C	CP2102 USB to UART Brid	dge C	$\langle \rangle$	
Serial	0001	0001		$\langle \rangle$	
Lock Device	00 - Device is unlocked	00 - Device is unlocked		$\langle \rangle$	
Raud Rate Δlias					
	Program Device				
Status Logging				v	
				\sim	
Log Programming to File:					

Figure 28 Overwriting PID

4) Several ten minutes after you click Program Device, the Status Logging column will be updated and "Default" and "value" of PID (hex) will be set to "EA61".

CP21xx Customization Utility		- 0	×		
File Settings Advanced					
Device Selection					
CP2102 - 0001		∨ Ref	resh		
Device Configuration					
Set IDs					
Property	Default	Value			
VID (hex)	10C4	10C4	\checkmark		
PID (hex)	EA61	EA61	\triangleleft		
Power (hex)	32	32	$\langle \!\!\!\!\!\!\!\!\!\rangle$		
Power Mode	00 - Bus powered	00 - Bus powered	$\langle \rangle$		
Release Version (Maj., Min.)	0100	0100	$\langle \rangle$		
Product Description	CP2102 USB to UART Bridge C	CP2102 USB to UART Bridge C	4		
Serial	0001	0001	4		
Lock Device	00 - Device is unlocked	00 - Device is unlocked	$\langle \varphi \rangle$		
Baud Rate Alias					
	Program Device				
Status Logging			~		
18/03/12 11:58: Device programming started					
18/03/12 11:58: Device programming completed.					
18/03/12 11:58: CP2102 FAILED write of PID (hex): EA61. Device value: EA60					
18/03/12 11:58: Device verification completed.					
18/03/12 11:50: Device alsconnected: CP2102 - 0001 18/03/12 11:58: Device connected: CP2102 - 0001					
Log Programming to File:					

Figure 29 Overwriting PID completed

5) Click the close button in the title bar to finish.

Step 7. Check of USB communication

This procedure is to check if the USB communication is successfully established between the flow transmitter and Windows 8.1 PC or Windows 10 PC.

- 1) Turn on the flowmeter and make sure the measurement screen appears.
- 2) Start FSC Loader ENG from the Start menu or desktop icon.



Figure 30 Initial screen

3) In SITE SETUP menu, select the PROCESS SETTING tab. Select the Check ON/OFF check box. Click READ to read the parameter values from the transmitter.

If the parameter values are read successfully, it means the transmitter has been updated for Windows 8.1 / 10.

🔲 Portable Type U	Jltrasonic Flowmeter - [SITE SETUP]					-		×
Version						_		
123.45 2500 - 0.999 MEASURE	LOGGER DATA	FLOW PROFILE	MAINTENANCE				Quit	
SITE ME	EMORY PROC	ESS SETTING	UNIT	OF OUTPUT/OUTPUT CO	NTROL			
	PIPE			SENSOR				
		33.07	[mm]	SENSOR MOUNT	V METHOD	~		
Setting	SENSOR SPACING2]	TRANS. VOLTAGE	80	~	[qqV]	
		60	[mm]					
		PVC	~	SENSOR TYPE	FSSD/FSD:	22/FLD22		~
READ	PIPE S.V.	2307	[m/s]					
	☑ WALL THICKNESS	4	[mm]	ZERO ADJUSTMENT				
		NO LINING	~	CLEAR	S	ET ZERO		
Save	LINING S.V.	0	[m/s]					
Check	✓ LINING THICKNESS	0	[mm]					
UN/OFF		WATER	~					
	FLUID S.V.	1440	[m/s]					,
		1.0038	[E-6m2/s]] SITE NAME PVC50A]	
Activate Wind Go to Settings to								
10/26/2017 4:43:3	10/26/2017 4:43:30 PM Reading of Data Logger was completed ENGLISH METRIC 16:45							

Figure 31 PROCESS SETTING screen

Step 8. Uninstallation

Once the update is complete, the CP210x VPC driver and the USBXpress Device Customization Utility are not needed.

Access Control Panel > Program > Programs and Features Uninstall the following applications:

- Windows Driver Package Silicon Laboratories Inc. (silabser) Ports...
- USBXpress Software Development Kit

Programs and Features					- 🗆	×
← → × ↑ 👩 > Control Panel > Programs > Programs and Features 🗸 ऎ			~ Č	Search Program	s and Features	P
Control Panel Home	Uninstall or change a program					
View installed updates	To uninstall a program, select it from the list and then click Uninstall, Change,	or Repair.				
Turn Windows features on or off						-
011	Organize 🔻					?
	Name	Publisher	Installed On	Size	Version	
	FSC Loader ENG		3/12/2018	5.01 MB	1.0.0	
	USBXpress Software Development Kit	Silicon Labs	3/12/2018		4.0.3.0	
	Windows Driver Package - Silicon Laboratories Inc. (silabser) Ports (09/27/20	Silicon Laboratories Inc.	3/12/2018		09/27/2017 6.7	7.5.1893
	windows Driver Package - Slitcon Laboratories Inc. (Windob) 056 (11/06/201	Silicon Laboratories Inc.	5/12/2016		11/00/2015 0.7	1.2.0
	<					>
	Currently installed programs Total size: 5.01 MB					
	8 programs installed					
	o programs installed					

Figure 32 Programs and Features