

Cathodic Technology Limited

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Procedure for Cath-Tech Product

Title:Hexcorder Pro Firmware UpdateProduct:Hexcorder ProAuthor:Matt Bechberger, R&D TechnologistRevision Author:Kyle Kato, R&D TechnologistContact:kyle@cath-tech.comDate:12-03-2021Document Revision:C

Hexcorder Pro Firmware update

Outline:

This procedure outlines the process to update the Hexcorder Pro firmware without special tools. This will allow the customer to update the firmware themselves without having to send the equipment to Cath-Tech.

Setup:

Items required:

- 1. Hexcorder Pro
- 2. Windows based PC with USB port
- 3. Mini USB to USB cable (provided with Hexcorder Pro)
- 4. Atmel FLIP software (with Java Runtime Environment included)
- 5. USB driver files
- 6. New firmware HEX file

Procedure:

- 1. Go to <u>http://cath-tech.com/firmware-updates/</u> and download the Atmel FLIP installer .exe from the provided link.
- 2. Download the firmware file by right clicking the link and selecting "Save link as". Save it as the default file type HEX file (*.hex).

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← → • ↑ 🖡	> This PC > Downloads >	✓ ³ Search Downloads	م م
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> 🧊 3D Objects	F0J53XTI49RNEAC APPLICATION_V0_74.hex	1/24/2017 2:20 PM 8/15/2019 1:50 PM	File folder HEX File
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3. Install ATMEL FLIP 3.4.7 to your PC from the provided .exe file, following the instructions in the installer. It will prompt you to install Java Runtime Environment if you do not have it installed already.

4. NOTE: This step is critical and needs to be followed exactly.

Move the HEX file (*.HEX) to the same folder that Atmel Flip 3.4.7 is installed in. This is usually "C:\Program Files (x86)\Atmel\Flip 3.4.7\bin".

• >	This PC \rightarrow Windows8_1 (C:) \rightarrow Program Files (x86) \rightarrow Atmel \rightarrow Flip 3.4.7 \rightarrow bin			
Na	me	Date modified	Туре	Size
	GuiDescriptionFiles	2017-03-17 2:23 PM	File folder	
Ξ	PartDescriptionFiles	2017-03-17 2:23 PM	File folder	
Ξ	ProtocolDescriptionFiles	2017-03-17 2:23 PM	File folder	
	APPLICATION_V0_98.hex	2020-12-02 9:43 AM	HEX File	474 KB
8	AtCanlxxat.dll	2010-03-10 7:30 AM	Application exten	30 KB
-	AtCanlxxat.ini	2010-03-10 7:33 AM	Configuration sett	1 KB
3	AtCanlxxat2.dll	2010-08-11 5:51 AM	Application exten	30 KB
\$	AtCanJanz.dll	2007-10-08 11:47 AM	Application exten	52 KB
\$	AtCanKv.dll	2010-08-19 5:43 AM	Application exten	36 KB
\$	AtCanPeak.dll	2011-02-10 8:21 AM	Application exten	40 KB
ģ	AtCanPeak.ini	2008-06-25 10:35 AM	Configuration sett	1 KB
8	AtCanRs232.dll	2011-02-10 8:21 AM	Application exten	40 KB
6	AtCanSystec.dll	2011-02-10 8:21 AM	Application exten	32 KB
6	<u>AtCanVector.dll</u>	2011-02-10 8:21 AM	Application exten	<u>36 KB</u>
4	AtJnilsp.dll	2011-09-20 8:37 AM	Application exten	387 KB
\$	AtLibUsbDfu.dll	2011-02-10 8:21 AM	Application exten	32 KB
\$	AtRs232.dll	2011-02-10 8:21 AM	Application exten	40 KB
6	AtRs232Targus.dll	2011-02-10 8:21 AM	Application exten	28 KB
4000 7002	batchisp.exe	2011-02-07 7:24 AM	Application	144 KB
4	CanApi2.dll	2008-09-23 4:38 AM	Application exten	80 KB
\$	canlib32.dll	2009-10-21 6:41 PM	Application exten	72 KB
file 111	flip.exe	2012-07-26 10:26 AM	Application	366 KB
0	GetPCANHW.dll	2007-10-08 11:47 AM	Application exten	40 KB
\$	jfrwl2.dll	2007-10-08 11:47 AM	Application exten	136 KB
\$	jfrwmfc.dll	2007-10-08 11:47 AM	Application exten	100 KB
4	jfrwos.dll	2007-10-08 11:47 AM	Application exten	84 KB
4	jfrwpfrm.dll	2007-10-08 11:47 AM	Application exten	84 KB
4	msvcp60.dll	2008-04-13 11:42 PM	Application exten	404 KB
4	msvcp80.dll	2005-09-22 6:05 PM	Application exten	536 KB
0	msvcr80.dll	2005-09-22 6:05 PM	Application exten	612 KB
0	msvcrt.dll	2008-04-13 11:42 PM	Application exten	335 KB
	util.jar	2008-11-21 4:13 AM	Executable Jar File	62 KB
4	vcand32.dll	2007-10-08 11:46 AM	Application exten	84 KB
\$	VCI2_AtCanlxxat.dll	2011-02-10 8:21 AM	Application exten	40 KB
4	Vci11un6.dll	2007-10-08 11:47 AM	Application exten	241 KB

5. Connect the Hexcorder Pro USB cable from the PC to the Hexcorder Pro



6. With the Hexcorder turned off, press and hold the purple and orange buttons, then press the power button. Release the buttons.



GPS

Po

Charge

CP Survey Instrument





7. The GPS LED will be solid amber when the unit is ready to program.



8. The device will be detected and windows will attempt to load the drivers from the internet. If you are on Windows 10 it will likely find them, but if you are on Windows 8 or 7 it may not. If drivers are found, skip to **Step 17**.

U Driver Software Installation				
Device driver software was not successfully installed				
Please consult with your device manufacturer for assistance getting this device installed.				
DFU ATXMEGA256A3U XNo driver found				
What can I do if my device did not install properly?				
Close				

9. If the drivers are not found, they are available in a ZIP file from http://cath-tech.com/firmware-updates/. Extract the ZIP file to your Downloads folder.

10. To install the driver, click the start menu, right click "Computer" (windows 7) or "This PC" (Windows 10) and select "Manage"



11. Select the "Device Manager" option on the left side list



12. Locate the item DFU ATXMEGA256A3U, usually under "Other Devices" and indicated with a yellow symbol as having an issue



13. Right-click the item and select "Update Driver Software..."



14. Click the "Browse my computer for driver software" button



15. Navigate to the extracted ZIP folder in your Downloads folder and click next.



16. If prompted about installing this device software, click "Install"



17. When finished, click close



18. Run ATMEL FLIP from the desktop



19. Click the chip icon



20. Select the device name "ATxmega256A3U" and click OK



21. Click the USB cable icon



22. Select the option USB



23. A small window will open, click Open



24. Check the items shown in green are now not greyed out



25. Click file, Load HEX file



26. Select the new firmware HEX file to load

🚮 Atmel Flip	🚮 Atmel Flip — 🗆 🗙					\times	
File Buffer Devic	ce Settings H	elp					_
📶 Load HEX/A	90 File						×
C Look in	: 📙 bin			~			٦
Recent Items	GuiDescri PartDescri ProtocolD	otionFiles ptionFiles escriptionFiles ION_V0_98.hex					
Desktop							
Documents							
This PC							
Network							
	File name:	APPLICATION_V0_	98.hex			OK	
	Files of type:	Intel HEX and AVR A	A90 Files		~	Cancel	

27. Click the Run button, the device will be programmed and all 4 lights shown will turn green

🌃ath Tech depositary/HexCorder/Firmware Releases/APPLICATION_V0_42.he🖈 — 🗌 🗙				
<u>File Buffer Device Sett</u>	ings <u>H</u> elp			
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Operations Flow	FLASH Buffer Information	ATxmega256A3U		
💿 📝 Erase	Size 256 KB	Signature Bytes 1E 98 42 06		
	Range 0x0 - 0x22171	Device Boot Ids 00 00		
📀 🖂 Blank Check	Reset Before Loading	Bootloader Ver. 1.0.4		
📀 🗁 Program	HEX File: APPLICATION_V0_42.hex 139634 util bytes			
📀 [Verify	AMEL,			
Run	Select EEPROM	Start Application		
Verify PASS USB ON				

28. Power off the Hexcorder Pro. Power it back on and test the USB functionality to ensure that the USB file access is working properly. If there is a file access issue, repeat the update process and try again. If the issue remains, contact Cathodic Technology for assistance.

Contact for additional assistance or other information:

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