## USB Driver Installation (Example on OS X 10.9.4)

1 – Connect Xenophone to the Mac using a standard USB cable then power on Xenophone.

2 - If you have installed the latest OS X version on your Mac, it contains Xenophone USB chip driver. For verification, Go to the **Apple menu** and select **About This Mac** > **More info** > **System Report**:



3- Click on "**USB**" on the left and on the "**USB** <->Serial" If you see the following information, there will be no need for driver installation, otherwise follow the steps listed below:

000		MacBook Pro				
▼ Hardware	USB Device Tree					
ATA	▼ USB Hi-Speed Bus					
Audio	▼Hub					
Bluetooth	USB <-> Serial					
Camera	Internal Memory	Card Reader				
Card Reader	Apple Internal Ke	eyboard / Trackpad				
Diagnostics	TBRCM2070 Hub					
Disc Burning	Bluetooth USE	B Host Controller				
Ethernet Cards	▼ USB Hi-Speed Bus					
Fibre Channel	▼Hub					
FireWire	USB-PS/2 Optica	l Mouse				
Graphics/Displays	Built-in iSight					
Hardware RAID	IR Receiver					
Memory						
PCI Cards	USB <-> Serial:	0				
Parallel SCSI	USB <-> Serial:					
Power	Product ID:	0x6001				
Printers	Vendor ID:	0x0403 (Future Technology Devices International Limited)				
SAS	Version:	4.00				
SATA/SATA Express	Speed: Manufacturer:	Up to 12 Mb/sec FTDI				
SPI	Location ID:	0xfa140000 / 6				
Storage	Current Available (mA):					
Thunderbolt	Current Required (mA):	90				
USB						
▼ Network						
Firewall						
Locations						
Volumes						
WWAN						
Wi-Fi						
Apple's MacBook Pro	Hardware ▷ USB ▷ USB ⊢	H-Speed Bus ⊨ Hub ⊨ USB <-> Serial				

4- Download the latest VCP driver of Xenophone USB chip from this link:

http://www.ftdichip.com/Drivers/VCP/MacOSX/FTDIUSBSerialDriver\_v2\_2\_18.dmg

This is for the current version at the time of writing (version 2.2.18) the same instructions should apply for any future updates (more info: <u>http://www.ftdichip.com/Drivers/VCP.htm</u>).



FTDIUSBSerialDriver\_10\_3.pkg which is specific to OSX 10.3 (Panther) FTDIUSBSerialDriver\_10\_4\_10\_5\_10\_6.pkg which is specific to OSX 10.4 (Tiger), OSX 10.5 (Leopard), 10.6 (Snow Leopard), 10.7 (Lion) and 10.8 (Mountain Lion).

To install the driver on the Mac you simply click on the .pkg that matches your version of OSX. With Lion and Mountain Lion, you will need to bypass the new Gatekeeper security function to install the pkg file. Simply press **Cntrl-Click** when you select FTDIUSBSerialDriver\_10\_4\_10\_5\_10\_6.pkg. This will bring up a pop-up menu. Select Open from this menu:

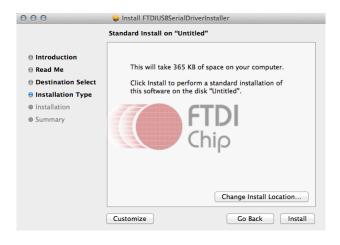
en en With ► ow Package Contents		"FTDIUSBSerialDriver_10_4_10_5_10_6_
Get Info Compress "FTDIUSBSerialDriv10_5_10_6_10_7" Burn "FTDIUSBSerialDriv10_5_10_6_10_7" to Disc Make Alias Quick Look "FTDIUSBSerialDriv10_5_10_6_10_7" Share		7" is from an unidentified developer. Ar you sure you want to open it? Opening "FTDIUSBSerialDriver_10_4_10_5_10_6_10_7" will always allow it to run on this Mac.
opy "FTDIUSBSerialDriv10_5_10_6_10_7"		"FTDIUSBSerialDriver_10_4_10_5_10_6_10_7" is on the disk image "FTDIUSBSerialDriver_v2_2_18.dmg Safari downloaded this disk image today at 8:58 A
Show View Options		from www.ftdichip.com.
Label:	>>	Open Cance

5- Select "Open" and the VCP driver install process will begin (see next page).

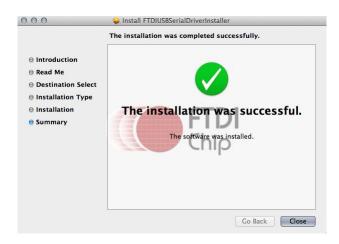
6- Select continue to install the driver, the same at the ReadMe screen.

○ ○ ○ 😜 Install FTDIUSBSerialDriverInstaller	000	😺 Install FTDIUSBSerialDriverInstaller
Welcome to the FTDIUSBSerialDriverInstaller Installer		Important Information
<ul> <li>Installation Type</li> <li>Installation</li> <li>Summary</li> </ul>	<ul> <li>Introduction</li> <li>Read Me</li> <li>Destination Select</li> <li>Installation Type</li> <li>Installation</li> <li>Summary</li> </ul>	FTDIUSBSerialDriver ReadMe           FTDIUSBSerialDriver is an implementation of a serial driver for FTDI           USB devices on Mac OS X. It supports FTBU232AM, FTBU245AM, FT232BM, FT245BM, FT2232, FT232R, FT245R, FT2232H, FT232H and FT X Series devices.           Revision History           V2.218           (Bh August 2012)           Ormeted insue with object work on the answ V2.217           V2.218           (2Bh February 2012)           Ormeted insue with object mort names. Release for Loon.           V2.216           (2Bh February 2011) Added support for FT232H, Force FT232R/FT245R endpoint size to 64 bytes.           V2.215           (3'm February 2011)           Corrected bauf data for requests using sub-integer divisors.

### 7- Select Install.



8- After a successful installation this page will be displayed.



# **Updating Firmware**

Before performing update Xenophone's USB driver must be installed on your Mac. you also need a terminal application for uploading the firmware file to your device. First download and extract CoolTerm:

http://freeware.the-meiers.org/CoolTermMac.zip

Then download "baudrates.zip" and extract it. Place "baudrates.ini" inside the same directory in which the CoolTerm application resides: http://www.hypersynth.com/xenophone/download/baudrates.zip

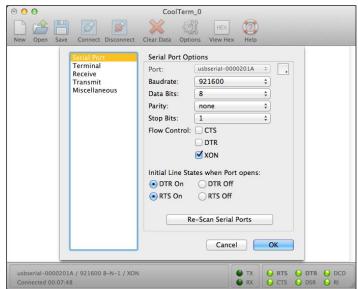
## **Step By Step instructions**

1-Download the latest firmware of your device and extract it: http://www.hypersynth.com/xenophone/download.html

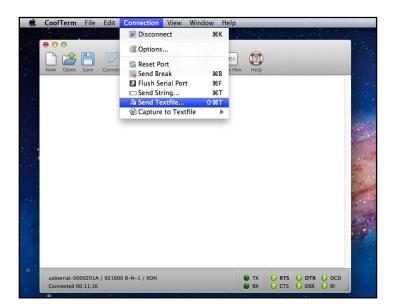
2- Power off Xenophone. Make sure USB cable is connected and CoolTerm is not running then HOLD [Latch] BUTTON while powering your device on. When you see the following message, release the [Latch] button. In this case the device enters OS programming mode and waits for incoming data and latch LED turns on:

Waiting for Firmware

3-Run CoolTerm > Options, select your device port, set baud rate to 921600 and enable XON. Click OK then Connect.



4-Select **Connection > Send Textfile** and locate your device firmware (\*.hex).



5-CoolTerm starts sending at the same time you must see activities on your device display too:

0 0	CoolTerm_0	
New Open	Save Connect Disconnect Clear Data Options View Hex Help	
	Sending 80%	· · · · · · · · · · · · · · · · · · ·
usbserial-00 Connected 0		DTR 🕒 DCD DSR 🔾 RI

Receiving	<b>.</b>
Line:10250	

6-After a successful update Xenophone must restart itself and start up normally.

If you encounter any problem in above method or the display is stuck while receiving, disconnect the link and power off your device then begin from step 1.

Remember: Firmware update is only available via USB port which is faster and safer than using the common method via MIDI interface. The update mechanism that Xenophone uses is Fail-Safe. There is no way that your device gets damaged during an unsuccessful update process. The boot loader area of the internal flash memory is write-protected at the factory. But it is recommended that you DO NOT power off your device, shutdown your Mac, disconnect USB cable or disconnect serial link during data transferring.

## **MIDI Over USB**

Before using this feature Xenophone's USB driver must be installed on your Mac. Make sure [MIDI Over USB = On] in Xenophone Global menu. It is also needed to setup IAC driver and install a USB<->Serial Bridge:

#### **Setting up IAC driver:**

Open Audio MIDI Setup (in the Utilities folder in Launchpad). In Audio MIDI Setup, choose Window > Show MIDI Window:

Ś	Audio MIDI Setu	<b>ip</b> Ec	dit View	Window Help			
00	0			Hide Audio Win	ndow	<b>%1</b>	Audio Devices
	Built-in Microphone 2 in/ 0 out	Ŷ	Built-	Show MIDI Wine Show Network	dow Device Browser	<b>米2</b> 米3	
	Built-in Input 2 in/ 0 out		Clock	s Close Minimize		жw жм	
æ	Built-in Output 0 in/ 2 out	<b>≨</b> ∎)		Zoom Bring All to Fro	nt		Input Output
				✓ Audio Devices mat: 44100.0 Hz  ▼	2ch-24bit Integ	jer	
			Ch Master 1: 2:	Volume			O

The **MIDI Studio** window will open (next page):

Audio MIDI S	etup Ed	dit View Window I	Help	4
			Audio Devices	
Built-in Microphor 2 In/ 0 out	ne 🎍	Built-in Microphone		
Built-in Input 2 in/ 0 out		Clock source: Defaul	lt	
Built-in Output	-		Input Output	
0 in/ 2 out	<b>₩</b>		O O MIDI Studio	
		Source: Internal n	🕂 💭 Default 🗧 👬 📠 🕎 🖓 🥐	s
		Format: 44100.0		
		Ch Volume Master	IAC Driver Network	
		1: 0		ł
		2:		1
				J

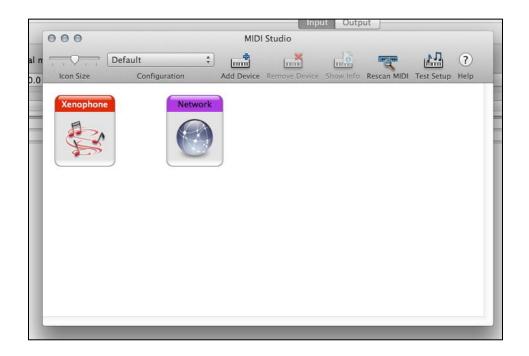
Double click on the IAC Driver icon, the IAC Driver Properties window will open. Type Xenophone in Device Name text box, and make device online:

				Input Output	
0	00		MIDI Stu	dio	
		000	IAC Driver P	roperties	<b>Л</b> 2
al n 🦷	Icon Size		Manufactur Mod Por MIDI device's port struct	ne: Xenophone rer: Apple Inc. del: IAC Driver Device is online Less Information ts ure here. First, set the number of ports of li n and out connectors for each port.	Setup Help
		Ports		Connectors for:	
		IAC Bus 1		IAC Bus 1	
		+ - Add	and Remove Ports	MIDI In: 1 (‡) MIDI Out: 1 (‡)	
1	-	?		Revert Apply	

Now create another port by clicking on the **+ button**, and name it to Xenophone:

			Input Output	
000		MIDI Studio	,	
	000	IAC Driver Prop	erties	
al n	You can set up the MIDI of	Device Name: Manufacturer: Model: Ports Ports	Xenophone Apple Inc. IAC Driver Device is online Less Information here. First, set the number of ports of and out connectors for each port.	
	IAC Bus 2		AC Bus 2 MIDI In: 1 + MIDI Out: 1 +	
-	+ - Add and	Remove Ports	Revert Apply	

Click on Apply:



### Installing MIDI<->Serial Bridge:

Download and extract this free app:

https://github.com/downloads/projectgus/hairless-midiserial/hairless-midiserial-0.4-macosx.zip

Run "hairless-midiserial" app then:

- 1- Select [USB Serial Port] as Serial Port.
- 2- Select [Xenophone IAC Bus 1] as MIDI Out and [Xenophone IAC Bus 2] as MIDI In:

Hairless MIDI<->Serial Bridge
MIDI Out
Xenophone IAC Bus 1
MIDI In Xenophone IAC Bus 2
al-fa14'

Now [Xenophone IAC Bus 1] represents Xenophone's MIDI OUT and [Xenophone IAC Bus 2] represents Xenphone's MIDI IN.

While using MIDI OVER USB the standard hardware MIDI ports will be disabled in Xenophone.

If you encounter any problems, or you have suggestions for future revisions, don't hesitate to contact our technical support at: <u>Support@hypersynth.com</u>



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