

How to Reprogram a Crystal Card

This document addresses how to recover a CC-1 from a wiped flashed memory state.

This state can be achieved if there was a power failure to the Host PC while the card is being programmed, and numerous others which will not be accounted in this document.

The condition is visually indicated by a <u>red light</u> on the CC-1 being on.



There are two possibilities for recovery, depending on the extent of memory wiping.

The first step is to toggle the **Image bank selection switch** and use the factory default image to try, and get the card running again.



Under normal operation, this switch is ON, or in the UP position. This accesses the day to day image that a user will interact with.

Flick this switch to OFF, or in the DOWN position. This will access the factory default image. Once this is done, shut the PC off and power backup.

If this still results in the RED light shown on the previous page to come back on then **you must proceed to the next step.** For this next step you will require an Altera USB-Blaster. This can be bought from any Altera distributor around the world. A list of these outlets can be found at <u>www.altera.com</u>

You can download from the Fairlight ftp site (Dryice) \rightarrow the software to drive the USB blaster. It is in this directory:

ftp://ftp.fairlightau.com/DryIce/Altera Programmer/

Attach the USB Blaster to the board as such:



Then connect the USB blaster to the PC with Quartus Programmer package.

The driver for the USB blaster can be located in the installation directory of the Quartus Programmer.

When you start the Quartus Programmer, You will be presented with an interface similar to what is below.

📩 Hardware Setu	D No Hardware										M	tode: JTAG	Progress:	0%
Enable real-time ISP to allow background programming (for MAX II devices)														
≱ ¥a Start	File	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP			
💼 Stop	<none> <none></none></none>	EPM3256A/7256AE EP1560/ HARDCO	00000000	<none></none>										
Auto Detect	<none></none>	UNKNOWN_181D2	00000000	<none></none>										
X Delete														
🖄 Add File														
Change File														
Save File														
Add Device														
- Up	5													
Down														
	4													

If this is the first time using the application or if you have started the application while the USB blaster was not connected to the PC, you <u>must</u> click on Hardware Setup and select the USB blaster.

- Now press Auto Detect.
- Select Device EP1S60/
- Click Change Files
- Navigate to the Audioengine.sof file in the system directory of your Dream II install.

C:\Program Files\Fairlight\Dream II\System

- Tick the check box Program/Configure for the EP1S60 device.
- Press Start.

- The process should take less than 10 seconds.
- Once the Progress bar is at 100%, you should now see a heartbeat on the card.
- Restart the PC, DO NOT SHUT IT OFF.

When you are back into Windows XP. Do the following:

- START
- RUN
- Type "cmd" then press <enter>
- Type "cd c:\program files\fairlight\dream II\system" then press <enter>
- Type "xflash -b=0 -f=audioengine.rbf" then press <enter>
- Type "xflash -b=1 -f=audioengine.rbf" then press <enter>

Once these tasks are completed, press the Reset Switch on the back of the card and the Red light should turn off.



If everything is done correctly up to this point and the Red light <u>does not turn off</u>, The only thing that can be done is to contact Fairlight.

- Make sure the Dipswitches are in their normal operating positions,
- Shutdown the PC
- Power back up and proceed the CC-1 under normal conditions.

Happy Programming !

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