CRMX² UPGRADE PROCEDURE DMG MINI™, DMG SL1™, DMG MAXI™



This instruction sheet is for updating the LumenRadio CRMX chip inside the DMG MINI, DMG SL1, and DMG MAXI fixtures to CRMX². DMG DASH w/ CRMX fixtures can be updated to CRMX² by updating the fixture's firmware via the myMIX[™] app.

In order to upgrade the LumenRadio CRMX chip to CRMX², a temporary firmware needs to be installed in the DMG MAXI and the MIX Controller for the DMG MINI & SL1.

IMPORTANT: This temporary firmware is only used to upgrade the CRMX chip to CRMX². Once the firmware has been installed and the CRMX² update is complete, the MIX 2.1 Firmware must be reinstalled to make the controller/fixture functional again.

Once the temporary firmware and drivers have been downloaded, the CRMX² upgrade process takes about two minutes. A progress indicator is displayed during the update process.

To begin, download the CRMX² Firmware Update.zip file to a PC (Windows 10 or higher) and follow the steps below.

STEP 1

Extract the zip file

Name	Date modified	Туре	Size
Crmx_Update_1-0-0.bin	3/5/2024 3:50 PM	BIN File	368 KB
DFUSEC.exe	12/18/2017 5:45 PM	Application	547 KB
DFUUTIL.ini	3/5/2024 4:04 PM	Configuration settings	1 KB
DMG MIX CRMX2 Update Instructions.pdf	12/8/2023 3:53 PM	Adobe Acrobat Document	622 KB
📄 iram_dfu_util_any.bin.hdr	12/18/2017 5:45 PM	HDR File	18 KB
🌀 lct_installer_1.exe	3/9/2018 1:54 PM	Application	21,945 KB
🔊 mix_update_software_double_bank.ini	11/23/2021 4:55 PM	Configuration settings	1 KB

STEP 2

If you have never updated the MIX Controller with this computer before, you will need to install the drivers.

- 1. Launch lct_installer_1.exe to install the drivers.
- 2. Untick the View readme file checkbox.





1. Launch DFUSec.exe to open the firmware installation program on your PC.

Name	Date modified	Туре	Size
Crmx_Update_1-0-0.bin	3/5/2024 3:50 PM	BIN File	368 KB
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2. Go to File and **untick** the Lock LINK2 function checkbox.

BFU programmer/LPC-Link 2 Configuration Tool		– 🗆 X
File Help Load Configuration	Start Program Operation 1: Press the program button to program the board	Verify Program Operation
Image description		
Auto program currently selected Lnk2 image on board detection Enable run-time debug messages	Program the Link2 with the currently selected image	
' PROG mode ~ NO CONN		

3. Make sure that the file Step is set to 0 before updating to CRMX².



4. Make sure that the selected file is "Crmx_Update_1-0-1.bin"

DFU progra	ammer/LPC-Link 2 Configuration Tool	
File Help		
HDR/RAW m	nodes Program mode Settings	
Step	0 Add Step Clear step(s)	
Algo	iram_dfu_util_any.bin.hdr	
File	Cmx_Update_1-0-1.bin	



- 1. Connect the MIX Controller or the DMG MAXI to power. If the Controller or the fixture turns ON turn it back OFF.
- 2. Connect the MIX Controller or the DMG MAXI to the PC using a USB to Micro USB cable.
- 3. Push the Red Dimmer button and keep it pressed down.



4. Push the Power button on the MIX Controller or DMG MAXI and keep it pressed down while continuing to press the Dimmer button. You should now be holding down both the Power and the Dimmer buttons.



5. Release the Red Dimmer button but continue to press the Power button.





While continuing to press the Power button on the MIX Controller or DMG MAXI fixture, click Start on your PC to begin the upgrade process. Continue holding down the Power button until the process is completed.

Exec 0x00000000		
Verfy image after programming by reading it back		
Compute/Inset checksum in image before programming		
Performs OTP fuse programmig as last program step	×	
	9 M	Cleartest

STEP 6

Check log message to see when the two "PROGRAM STEPS" show as completed.

DFU programmer/LPC-Link 2 Configuration Tool		- 0
ile Help		
HDR/RAW modes Program mode Settings	Output log Program log	
	NXP DFU Utility version 1.11	
Step 0 Add Step Clear step(s)		
Algo iram_dfu_util_any.bin.hdr		
File Crmx_Update_1-0-1.bin		
Address 0x1a000000		
Size 0x80000		
Param 0x00000000		
Device erase options		
O No erase O Region erase O Full device erase		
Operation after program cycle complete		
O Do nothing O Reset O Jump to address		
Exec 0x0000000		
○ Verify image after programming by reading it back		
Compute/Insert checksum in image before programming		
Performs OTP fuse programmnig as last program step	4	Þ
	Start	Cleartext
Grande - NO CONN		

STEP 7

Release the Power button on the MIX Controller or DMG MAXI. The controller display will show the upgrade progress.



STEP 8

After ~2 minutes, the upgrade will be complete.



At this point, the LumenRadio CRMX chip has been updated, but the MIX 2.1 Firmware needs to be reinstalled again for the controller/fixture to be operational again.



Press the Power button on the MIX Controller or DMG MAXI fixture to turn it OFF, and then close firmware installation program on your PC.

STEP 10

Download the most up-to-date MIX 2.1 Firmware and then repeat steps 1-6 using the files contained in the MIX Firmware .zip file.

STEP 11

To ensure the firmware has been properly reinstalled, check for the pre-configured Firmware V2.x.x file names in the firmware installation program.

DFU programmer/LPC-Link 2 Configuration Tool	DFU programmer/LPC-Link 2 Configuration Tool
File Help	File Help
HDR/RAW modes Program mode Settings	HDR/RAW modes Program mode Settings
Step Image: Add Step Clear step(s) Algo iram_dfu_util_any bin.hdr File Mix_2-1-3.bin Address 0x1a000000 Size 0x80000 Param 0x00000000 Device erase options 0 Full device erase	Step Image: Add Step Clear step(s) Algo iram_dfu_util_any bin hdr File CalibrationLibrary_21-3 bin Address 0x1b000000 Size 0x80000 Param (x00000000) Device erase options Region erase Full device erase
Operation after program cycle complete	Operation after program cycle complete
O Do nothing O Reset O Jump to address	O Do nothing O Reset O Jump to address
Exec 0x00000000	Exec 0x00000000
Verfy image after programming by reading it back Compute/Insert checksum in image before programming Performs OTP fuse programmnig as last program step	Verify image after programming by reading it back Compute/Insert checksum in image before programming Performs OTP fuse programming as last program step
PROG mode VO CONN	PROG mode V NO CONN

The CRMX² Update is complete. If you have experienced any issues during the upgrade process, please contact: TechSupport@rosco.com