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.
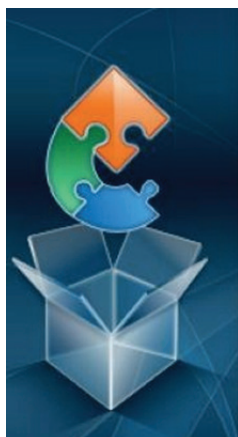
STEP 1

Extract the zip file

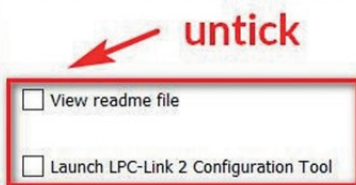| Name	Date modified	Type	Size
Crmx_Update_1-0-0.bin	3/5/2024 3:50 PM	BIN File	368 KB
DFUSEC.exe	12/18/2017 5:45 PM	Application	547 KB
DFUUTIL.ini	3/5/2024 4:04 PM	Configuration settings	1 KB
DMG MIX CRMX2 Update Instructions.pdf	12/8/2023 3:53 PM	Adobe Acrobat Document	622 KB
iram_dfu_util_any.bin.hdr	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.**

Completing the LPC-Link 2 Configuration Tool Setup Wizard

Click the "Finish" button to exit the Setup Wizard.

← untick

☐ View readme file

☐ Launch LPC-Link 2 Configuration Tool

STEP 3

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

Name	Date modified	Type	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

2. Go to File and **untick** the Lock LINK2 function checkbox.
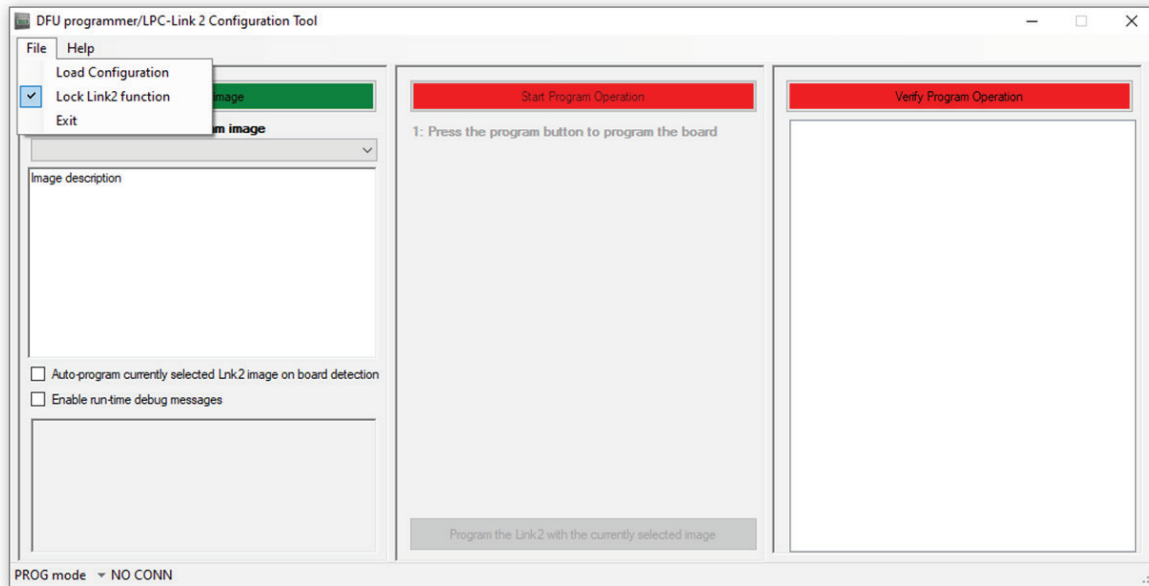
STEP 4

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.

MICRO USB
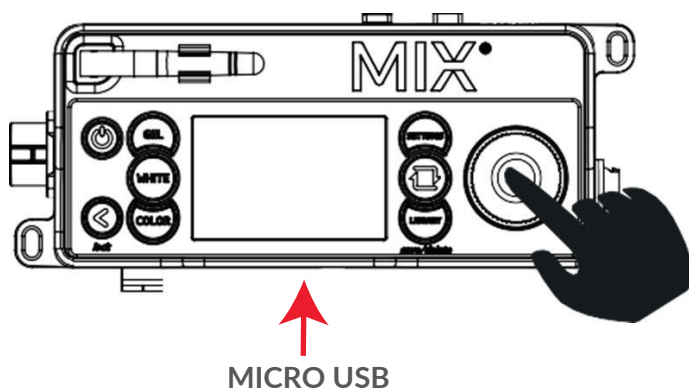
4. Push the Power button on the MIX Controller or DMG MAXI and keep it pressed down while continuing to press the Dimmer button. You should now be holding down both the Power and the Dimmer buttons.
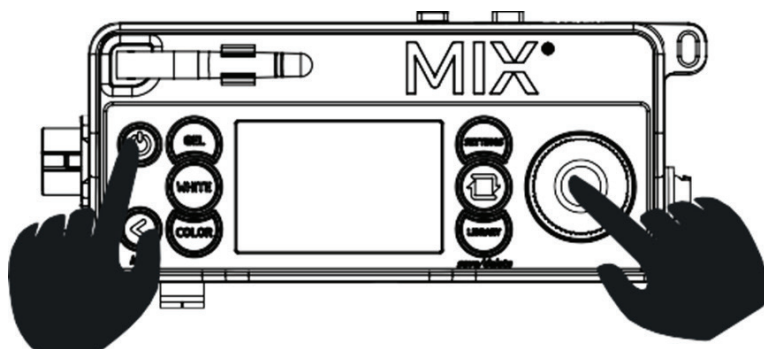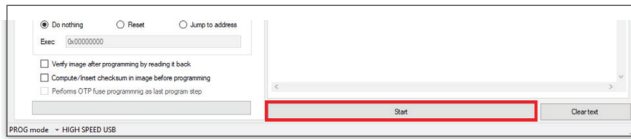
5. Release the Red Dimmer button but continue to press the Power button.
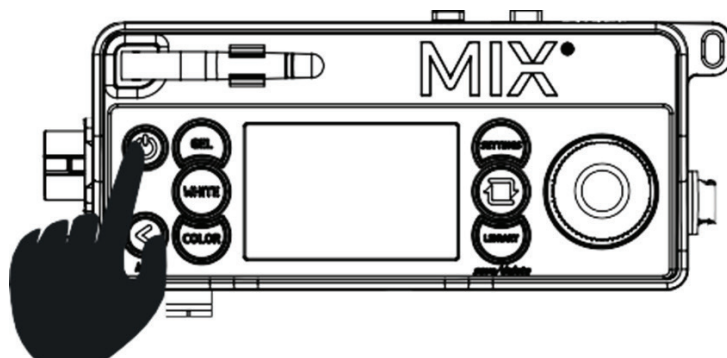
STEP 5

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.

STEP 6

Check log message to see when the two "PROGRAM STEPS" show as completed.
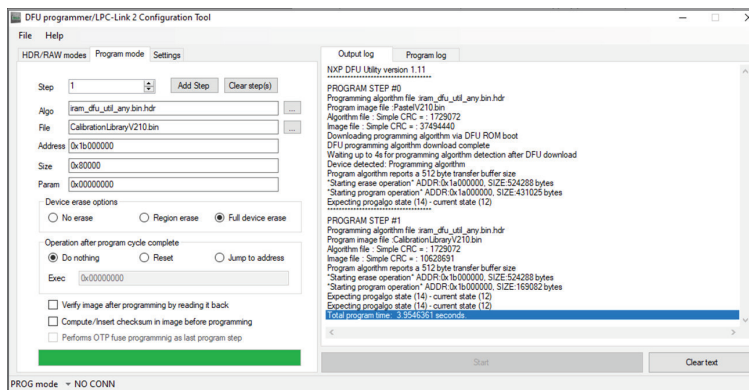
STEP 7

Release the Power button on the MIX Controller or DMG MAXI. The controller display will show the upgrade progress.
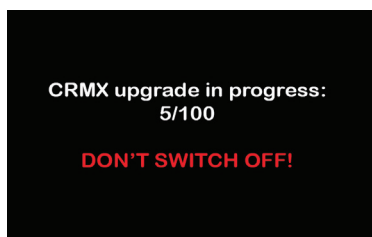
STEP 8

After ~2 minutes, the upgrade will be complete.

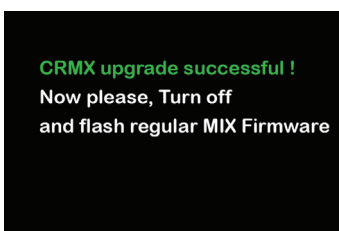At this point, the LumenRadio CRMX chip has been updated, but the MIX 2.1 Firmware needs to be reinstalled again for the controller/fixture to be operational again.
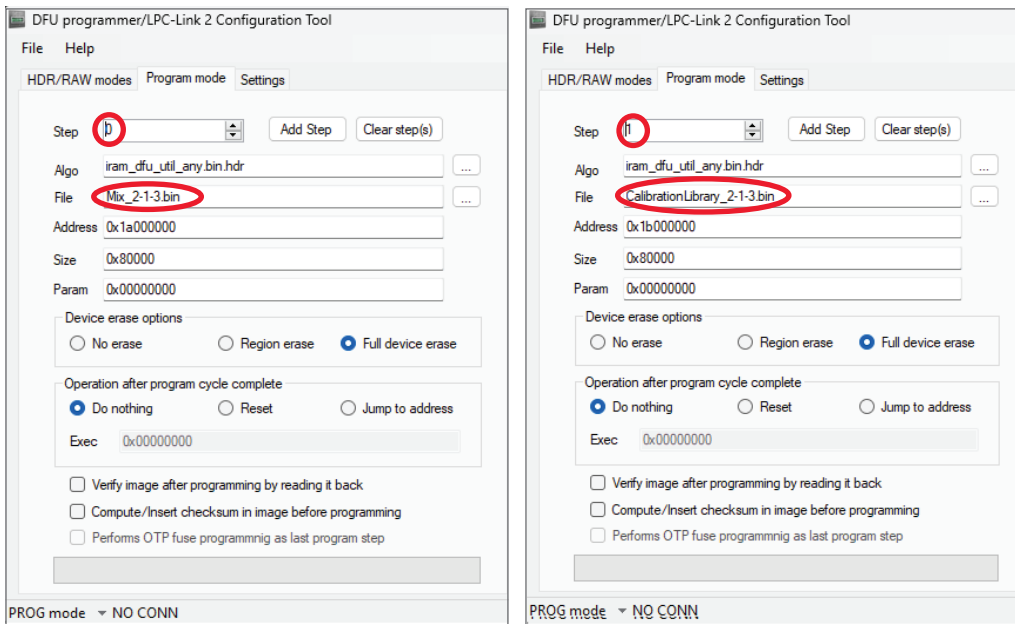
STEP 9

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 0 Add Step Clear step(s)	Step 1 Add Step Clear step(s)
Algo iram_dfu_util_any.bin.hdr ...	Algo iram_dfu_util_any.bin.hdr ...
File Mix_2-1-3.bin ...	File CalibrationLibrary_2-1-3.bin ...
Address 0x1a000000	Address 0x1b000000
Size 0x80000	Size 0x80000
Param 0x00000000	Param 0x00000000
Device erase options: ○ No erase ○ Region erase ● Full device erase	Device erase options: ○ No erase ○ Region erase ● Full device erase
Operation after program cycle complete: ● Do nothing ○ Reset ○ Jump to address	Operation after program cycle complete: ● Do nothing ○ Reset ○ Jump to address
Exec 0x00000000	Exec 0x00000000
☐ Verify image after programming by reading it back	☐ Verify image after programming by reading it back
☐ Compute/Insert checksum in image before programming	☐ Compute/Insert checksum in image before programming
☐ Performs OTP fuse programmnig as last program step	☐ Performs OTP fuse programmnig as last program step
PROG mode ▾ NO CONN	PROG mode ▾ NO CONN

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