

EPSi

EPSi Effect Processor

Firmware Updating Instructions



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Introduction

This document will guide you through the process of updating the firmware on your EPSi.

1. General Procedure

1.1. EPDA Folder

All data relevant to the EPSi on the SD Card is contained in a folder named "EPDA" in the root directory. If this folder does not exist it should be created before copying a firmware image on the SD Card.

1.2. .epu files

EPSi Firmware images are files with the .epu suffix. To update an image the file needs to be copied onto the SD Card in the EPDA folder.

Note: The EPDA folder should only contain one .epu file. There is no way to specify which file to use during the upgrading process. If more than one .epu file are present in the EPDA folder, the system will pick one randomly, which will lead to unexpected results.

1.3. Replacing an image

To replace an image in the internal program memory of the EPSi with the contents of an .epu file, go through the following sequence:

- Copy the .epu file to the EPDA folder on the SD Card. Make sure there is only a single .epu file in the EPDA folder. Repeat this entire sequence if

both the Boot Code and the application firmware need to be replaced.

- Turn off the EPSi.
- Insert the SD Card in the EPSi.
- Turn on the EPSi **while pushing down the “Param” button.**

While the EPSi goes through the updating process it displays a strobe animation which looks like this:



Do NOT turn off the power on the EPSi during this step. This is particularly important while updating the boot code where a shut down could render the EPSi permanently unbootable.

- An attempt at replacing the image has completed when the EPSi exits the strobe animation. With Version 1.00 and Version C.00, a power cycle is necessary to run the newly loaded image. On all subsequent versions the EPSi should start running the new application right away. If the firmware does not appear to have been replaced, check for the presence of the .epu file in the EPDA folder and try it again. Also make sure to update the boot code first if necessary.

2. Boot Code

2.1. What is the boot code?

The EPSi needs two pieces of firmware to run:

- The boot code. The boot code is the piece of firmware that launches the application firmware and handles the upgrading process.
- The application firmware. This is the program that will run while you are using the pedal. Currently it can be either version 1 (reverb) or version C (cab sim).

2.2. When do I need to replace the boot code?

An EPSi running version 1.00 or C.00 will need to have its boot code upgraded to b.01 in order to support application firmware updating. Attempting to load a new version of the application firmware without first updating the boot code will fail on version 1.00 or C.00.

2.3. Boot Code Updating procedure

The boot code updating procedure is the same as with other images. (see Section 1).

Note: After updating the boot code from version b.00 (shipped with version 1.00 or C.00 EPSis), and cycling the power, the EPSi will report the following error:



This just means that the bootloader did not find a compatible application image. Now the EPSi is ready to have its application image updated.

3. Application firmware image

Starting with version b.01 of the Boot Code, the EPSi can change applications just by inserting an SD Card with a new application image and starting it with the param button down.

As many SD Cards as available applications can be formatted and loaded with the proper application firmware and data and used to quickly boot up the EPSi in a different application.

As of today there are two compatible applications:

- Version 1.01: Convolution reverb
- Version C.01: Cab sim + Room convolution