

SMWB & SMDWB Record and Transmit Feature Upgrade Instructions

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This document outlines the procedure to upgrade your non-U.S. SMWB firmware to enable the new record and transmit feature.

These instructions should be followed exactly. Attempting to bypass steps or load the incorrect firmware into a unit may result in the unit not functioning properly. If this occurs, we can help, but it will be at the unit owner's expense, including shipping costs both ways. If you have any questions, please contact the factory.

1. Check Your Model Number and Firmware Version

Find the model number engraved on the transmitter housing, which indicates which non-U.S. version you own. If this model is listed in the following table, you may proceed. Otherwise, do NOT follow these instructions.

If you are located outside of the United States or Canada, and your transmitter's model number does not include /E01, /E06, or /X, please email service.repair@lectrosonics.com or call 505-892-4501 for more details.

Eligible Model Numbers:

SMWB/E01	SMDWB/E01
SMWB/E06	SMDWB/E06
SMWB/X	SMDWB/X

Power the transmitter on. Press the Power button again to open the Power Button menu and select "About" to open the About page.

Note your current firmware version number (e.g., 1.xx, 2.xx, or 8.xx). This is *critical* for selecting the correct update files. If your firmware version is not 1.xx, 2.xx, or 8.xx, do **NOT** follow these instructions - call the factory for alternate upgrade instructions.

If your firmware version is v8.xx, two version numbers will be displayed, for example "8.09/8.05". The first number is your current microcontroller firmware version number, and the second is your FPGA firmware version.

2. Download the Firmware Update File

SMWB and SMDWB firmware downloads are here:

<https://lectrosonics.com/firmware-smwb-smdwb/>

Use the following table to identify the proper firmware update zip file for your transmitter using the firmware version number you noted in step 1.

Firmware Version	Non-U.S. Market		
	/E01	/E06	/X
	v1.xx	smwb_e01_m160-b105.zip	N/A
	v2.xx	smwb_e01_m214-b204.zip	smwb_x_m160-b105.zip
		smwb_e06_m214-b204.zip	smwb_x_m214-b204.zip
	v8.xx	smwb_e01_m812-f808-b803.zip	smwb_e06_m812-f808-b803.zip
			smwb_x_m812-f808-b803.zip

After downloading the file, extract it into a temporary folder.

3. Format the microSD Card

Your microSD card must be formatted with the FAT32 file system.

On a Windows-based system, launch *File Explorer* and select the SD card. Right-click to open the context menu and choose the “Format...” option. Select File system “FAT32 (Default)” in the dialog box and click “Start”. When formatting is complete, click “OK” and then “Close”.

On a macOS system, launch *Disk Utility* and select the SD card. If the card is already formatted as “MS-DOS (FAT)”, then you do not need to do anything. If the card is in another format, click the “Erase” button. Select Format “MS-DOS (FAT)” in the dialog box and click “Erase”. When formatting is complete, click “Done” to close the utility.

4. Select and Install the Correct Bootloader

Critical Action: You must install a specific bootloader *before* upgrading the main firmware. From the following table, select the proper bootloader file using the information you noted in step 1. **Copy the selected bootloader file to the SD card you prepared in step 3.**

Firmware Version Series	Bootloader Version	Bootloader Filename
1.xx	1.05	smwb_boot_v1_05.ldr
2.xx	2.04	smwb_boot_v2_04.ldr
8.xx	8.03	smwb_boot_v8_03.hex

- Open the battery door and insert the prepared microSD card into the SD card slot. Install a fresh battery (or 2 batteries in the SMDWB) and close the door.
- Press and hold the up and down arrow buttons, then press the power button to power the transmitter on. **Use only fresh batteries!**
- The bootloader main menu will appear on the LCD. Highlight the “Update” option and press the MENU/SEL button.
- A list of available firmware files on the SD card is displayed. Select the bootloader file you copied onto the SD card and press the MENU/SEL button.
- A warning about the risk of a failed bootloader upgrade is displayed. Rest assured, following these directions will ensure a successful upgrade.
- Press the MENU/SEL button. The “Do it?” prompt appears. Use the down arrow key to select “Yes” and press the MENU/SEL button.
- The bootloader file will be installed. When finished you are prompted to remove the SD card from the transmitter.

5. Confirm Bootloader Version

To verify a successful bootloader installation, restart the bootloader program:

- Open the battery door and install a fresh battery (or 2 batteries in the SMDWB) and close the door.
- Press and hold the up and down arrow buttons, then press the power button to turn the transmitter on.
- The bootloader main menu will appear on the LCD. Note the bootloader version displayed on the top line, for example “LDR 2.04”. Confirm this is the version you installed in step 4.
- Press the down arrow button to highlight the “Pwr Off” option. Press the MENU/SEL button to power the transmitter off.

6. (Version 8.xx Only) Copy FPGA Firmware to SD Card

This step is only required for devices currently running version 8.xx firmware. If your device is using v1.xx or v2.xx firmware, **skip this section and go directly to step 7.**

Copy the file “smwb_fpga_v8_08.mcs” to the SD card you prepared in step 3.

7. Select and Install Microcontroller Firmware

From the following table, select the proper microcontroller firmware file for your device using the version number information you noted in step 1. **Copy the selected firmware file to the SD card you prepared in step 3.**

Firmware Version	Non-U.S. Market			
		/E01	/E06	/X
	v1.xx	smwb_e01 v1_60.ldr	smwb_e06 v1_60.ldr	smwb_x v1_60.ldr
	v2.xx	smwb_e01 v2_14.ldr	smwb_e06 v2_14.ldr	smwb_x v2_14.ldr
	v8.xx	smwb_e01 v8_12.hex	smwb_e06 v8_12.hex	smwb_x v8 12.hex

- Open the battery door and insert the prepared microSD card into the SD card slot. Install a fresh battery (or 2 batteries in the SMDWB) and close the door.
- Press and hold the up and down arrow buttons, then press the power button to power the transmitter on. **Use only fresh batteries!**
- The bootloader main menu will appear on the LCD. Highlight the “Update” option and press the MENU/SEL button.
- A list of available files on the SD card is displayed. Select the microcontroller firmware file you copied onto the SD card and press the MENU/SEL button.
- The firmware file will be installed. When finished you are prompted to remove the SD card from the transmitter.

8. (Version 8.xx Only) Install FPGA Firmware

If you have installed v8.xx firmware in step 7, FPGA firmware v8.08 must be installed.

- Open the battery door and insert the prepared microSD card into the SD card slot. Install a fresh battery (or 2 batteries in the SMDWB) and close the door.
- Press and hold the up and down arrow buttons, then press the power button to power the transmitter on. **Use only fresh batteries!**
- The bootloader main menu will appear on the LCD. Highlight the “Update” option and press the MENU/SEL button.
- A list of available files on the SD card is displayed. Select the FPGA file you copied onto the SD card in step 6 (smwb_fpga_v8_08.mcs) and press the MENU/SEL button.
- The FPGA firmware file will be installed. When finished you are prompted to remove the SD card from the transmitter.

9. Confirm Firmware Version

The final step is to check the version numbers reported by the About page. If these match the firmware files you installed, the new feature is available. These should be:

Firmware Version Series	Installed Firmware Version(s)
v1.xx	1.60
v2.xx	2.14
v8.xx	8.12/8.08

Power the transmitter on. Press the Power button again to open the Power Button menu and select “About” to open the About page. Note the firmware version.

Note: If your microcontroller firmware version is v8.12, two version numbers will be displayed, for example “8.12/8.08”. The first number is your current microcontroller firmware version number. The second is the FPGA firmware version number, which should be 8.08.

Note: The bootloader version number is not displayed on the About page.