

Quick Start Guide



SMB Series

SMDB/E01, SMDB/E02

Dual battery Transmitter

SMB/E01, SMB/E02

Single battery Transmitter



Digital Hybrid Wireless®
U.S. Patent 7,225,135



Fill in for your records:

Serial Number:

Purchase Date:

This guide is intended to assist with initial setup and operation of your Lectrosonics product.

For a detailed user manual, download the most current version at:

www.lectrosonics.com/europe

16 August 2019

SMB Series Transmitters

SMB Series transmitters are ideal for motion picture and television production, live theater and other productions where costuming is prevalent and the wireless must be concealed. Despite their tiny size, the transmitters are feature rich and well suited to demanding production environments where outstanding audio quality and RF performance are mandatory in the midst of temperature and moisture extremes.

Both models are compatible with the LectroRM app from New Endian LLC for **hands free** setup and adjustment. The transmitter can be put to sleep to conserve battery power during setup while the transmitter is buried deep inside costuming, then awakened for normal operation when the production begins. Other features include frequency and audio level adjustment and control lockout.



Operating frequencies:

- Block 470 470.100 - 495.600 MHz
- Block 19 486.400 - 511.900 MHz
- Block 20 512.000 - 537.500 MHz
- Block 21 537.600 - 563.100 MHz
- Block 22 563.200 - 588.700 MHz
- Block 23 588.800 - 614.300 MHz
- Block 606 606.000 - 631.500 MHz
- Block 24 614.400 - 639.900 MHz
- Block 25 640.000 - 665.500 MHz
- Block 26 665.600 - 691.100 MHz

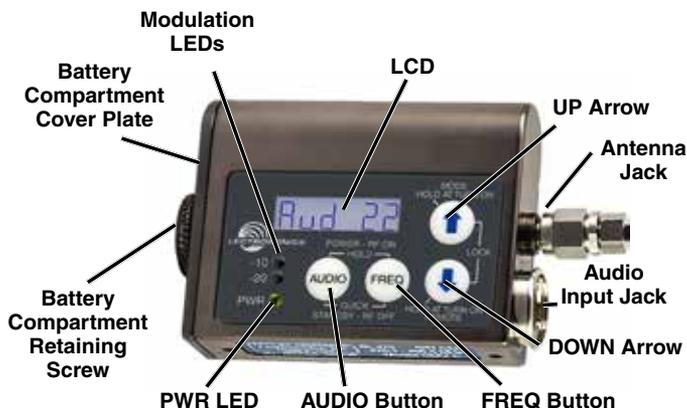
E02 Additional Frequencies:

- Block 27 691.200 - 716.700
 - Block 28 716.800 - 742.300
 - Block 29 742.400 - 767.900
 - Block 30 768.000 - 793.500
 - Block 31 793.600 - 819.100
 - Block 32 819.200 - 844.700
 - Block 33 844.800 - 861.900
- (100 kHz Steps)

NOTE: It's the user's responsibility to select the approved frequencies for the region where the transmitter is operating.

RF Power output: 50 mW

Controls and Functions



LCD Screen

Used to display the status of the selected function.

Power LED

Indicates power status and battery strength.

Audio Input Jack

Accommodates most lavalier and dynamic microphones, and line level signals.

Modulation LEDs

Provides a visual indication of the audio input signal level - either red or green to indicate modulation levels.

Audio Button

Used to display the audio level setting (0 dB to 44 dB) on the LCD and used with the Up and Down arrows to adjust the audio level input from the microphone.

FREQ Button

Used to set the operating frequency and toggle the LCD between the operating frequency in MHz and a two-digit hexadecimal frequency code.

Up/Down Arrows

Used to adjust the selected function or parameter.

Battery Compartment, Cover Plate and Opener

Used to install or remove battery/batteries.

Operating Instructions

Power On

- 1) Ensure that good batteries are installed.
- 2) Simultaneously press and hold the AUDIO and FREQ buttons until the Power On Boot Sequence is initiated (3 seconds).



Initial Power On
Timer Screen

Power Off

- 1) Simultaneously press and hold the AUDIO and FREQ buttons while observing that the word "Off" appears in the LCD along with a counter.
- 2) When the counter reaches "0", the unit turns off.



Initial Power Off
Timer Screen

Note: If the AUDIO and FREQ buttons are released before the end of the countdown, the unit will not turn off.

Standby Mode

From the "OFF" position, quickly press and release both the AUDIO and FREQ buttons simultaneously to enter and exit this mode. Allows the user to verify or change the transmitter's operating frequency or audio input level without transmitting any signals.



Standby Screen

Selecting the Compatibility Mode and Power

SMB Series transmitters will work with all E01 Series Digital Hybrid Wireless® receivers in the native, compandor-free mode and with E01 Series IFB receivers. Consult your dealer or service center regarding use with other models and brands.



Digital Hybrid Wireless®
Compatibility Mode

Note: RF transmission is prevented while selecting Compatibility Modes. Also, the transmitter exits the Compatibility Mode screen to Standby Mode. (See Standby Mode, this section.)

- 1) Set the receiver's audio controls to minimum.
- 2) From a power off condition, press and hold the Up arrow, then press the AUDIO and FREQ buttons simultaneously.
- 3) The LCD will display the current Compatibility Mode. Use the Up or Down arrow button to set the Compatibility Mode to match the corresponding receiver.

Hbr - This is the factory default setting and works with all Lectrosanics E01 Series Digital Hybrid Wireless® receivers, including the Venue.

IFb - This mode works with all Lectrosanics IFB compatible receivers.

- 4) The selected compatibility mode will be the current Compatibility Mode until reset using this procedure. Pressing AUDIO or FREQ exits into the Standby Mode. To power off from the compatibility mode screen, press AUDIO and FREQ together.

Setting Transmitter Operating Frequency

The Operating Frequency of the SMB Series transmitter is displayed either in MHz or as a two-digit hexadecimal number. Pressing the **FREQ** button toggles between the two display modes. The frequency can be set with the unit in Standby Mode or while powered up for normal operation.

Note: You must first find a clear frequency with the receiver, then set the transmitter to match.

To change the Operating Frequency of the SMB Series transmitter:

- 1) Press the **FREQ** button to enter this screen.

Note: The default display is in MHz. Pressing the **FREQ** button again displays the operating frequency as a two-digit hexadecimal number.

- 2) While holding the **FREQ** button, use the Up or Down arrow buttons to move the operating frequency up or down in 100 kHz increments from the current setting. Holding the Up or Down arrows will cause rapid scrolling through the frequencies.

Note: The operating frequency displayed on the LCD wraps as it reaches the upper or lower end of its range. Thus, if you intend to move the operating frequency from the lower end of the range to the upper end, it may be faster to do this by using the Down arrow until the frequency wraps to the upper end

A green LCD display showing the number 644.400 in a black digital font.

Frequency displayed
in MHz

A green LCD display showing the text CH 2C in a black digital font.

Frequency displayed as
two-digit hexadecimal
number

Adjusting the Low Frequency Roll-off

Repeatedly press the AUDIO button until the LF roll-off adjustment screen appears. Then press and hold the AUDIO button while selecting the desired roll-off frequency with the UP and DOWN arrows.



The roll-off frequency can be set to 35, 50, 70, 100, 120 and 150 Hz.

Attaching a Microphone and Adjusting Gain

The front panel Modulation LEDs indicate limiter activity. (See chart below.) Once set, the transmitter's audio level setting **should not** be used to control the volume of your sound system or recorder levels.

This gain adjustment matches the transmitter



Signal Level	-20 LED	-10 LED
Less than -20 dB	○ Off	○ Off
-20 dB to -10 dB	● Green	○ Off
-10 dB to +0 dB	● Green	● Green
+0 dB to +10 dB	● Red	● Green
Greater than +10 dB	● Red	● Red

gain with the microphone's output level, the user's voice level and the microphone's position. The audio input level can be set with the unit in Standby Mode or powered up for normal operation.

Note: Different voices will usually require different settings of the AUDIO control, so check this adjustment for each person using the system. If several different people will be using the transmitter and there is not time to make the adjustment for each individual, adjust it for the loudest voice.

- 1) With SMB Series transmitter powered off, insert the microphone plug into the Audio Input Jack, aligning the pins and ensuring that the connector locks.
- 2) Place the SM/E01 in Standby Mode, or if the unit is to be powered up and adjusted, mute the main sound system prior to powering up the transmitter.
- 3) Position the microphone in the location where it will be used in actual operation.
- 4) Observe the transmitter audio level LEDs while speaking or singing into the microphone at the same voice level that will be used during the program. While holding the AUDIO button, press the Up or Down arrow buttons until the both the -20 and -10 LEDs glow green, with the -20 LED occasionally flickering red (+0 dB to +10 dB range during peaks).

Note: Setting the audio level too high reduces the dynamic range of the audio signal. Setting the audio level too low may cause hiss and noise in the audio.

- 5) If the unit was set up in Standby Mode, it will be necessary to power up the SMB Series transmitter and adjust the remaining components of the audio system prior to use.

Locking or Unlocking the Control Panel

The Lock mode protects the transmitter from accidental changes to its settings.

- 1) Ensure the transmitter setup is complete.
- 2) Simultaneously press both the Up and Down arrow buttons to start the Lock timer. When the timer reaches zero, "Loc" is displayed and the controls are locked.



Important: The only ways to unlock a locked transmitter are to remove the battery or unlock it via remote. It cannot be unlocked or powered off using the buttons. The remote function will work only if the transmitter was previously configured to respond to remote. The unit will always power up in "unlocked" mode.

Battery Installation

We recommend using lithium or high-capacity rechargeable batteries for longest life.

Note: Standard zinc-carbon batteries marked "heavy-duty" or "long-lasting" are not adequate.

The battery status circuitry is designed for the voltage drop over the life of lithium batteries.

To install new batteries:

- 1) Turn the Battery Cover Plate Opener counterclockwise, open the battery compartment and remove any old batteries.
- 2) Insert the new battery (or batteries) into the housing, positive (+) terminal first.

Important: On dual-battery transmitters, BOTH batteries go positive (+) terminal first.

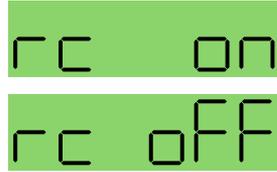
- 3) Replace the Battery Cover Plate and tighten the Opener.



**Do Not
Cover
Gore-
Tex® Vent**

Configuring for Remote Function

Some transmitter settings can be changed with the LectroRM App (available from a third party from IOS and Android). However, you must first configure the SMB Series transmitter to accept remote commands:



Remote Function Screens

- 1) Press and hold the Down Arrow Button then power on the transmitter by pressing the Audio and Freq buttons simultaneously.
- 2) The LCD will display the status, either “rc ON” or “rc OFF.” To change the setting, press the Up or Down arrow button.
- 3) Power Off the transmitter by pressing the Audio and Freq buttons simultaneously. The RC setting will persist when you Power Up the transmitter again.

Note: SMB Series transmitters with firmware version 1.6 and later are factory set to “rc ON” by default.

Configuring for Power Restore

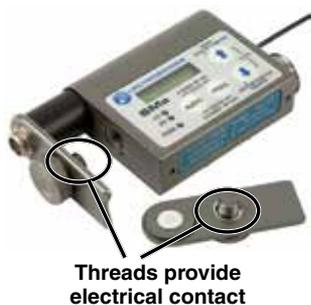
Power Restore will return your transmitter to settings that were in effect before it was powered off. This eliminates the need to manually turn the power back on after a battery has run down all the way.



Power Restore Screens

- 1) Press and hold the Down Arrow Button then power on the transmitter by pressing the Audio and Freq buttons simultaneously.
- 2) The LCD will display the status, either “rc ON” or “rc OFF.” Press “AUDIO” or “FREQ” key to scroll to the “PbAc 0” setting and use arrow keys to turn to “PbAc 1” for on.
- 3) When power is restored the unit will turn on with previous settings.

Using the Silver Paste



Threads provide electrical contact

Silver paste is applied to thumbscrew threads on new units at the factory to improve the electrical connection from the battery compartment through the housing on any SMB Series transmitter. This applies to the standard battery door and the battery eliminator.

The small enclosed vial contains a tiny amount (25 mg) of silver conductive paste. A small speck of this paste will improve the conductivity between the thumbscrew and the case.



With improved conductivity (lower resistance) more of the battery voltage can get to the internal power supplies causing reduced current drain and longer battery life. Though the amount seems very small, it is enough for years of use. It is, in fact, 25 times the amount that we use on the thumbscrews at the factory.

To apply the silver paste, first completely remove the cover plate from the SM housing by backing the thumbscrew completely out of the case. Use a **clean, soft cloth** to clean the threads of the thumbscrew.

NOTE: Do NOT use alcohol or a liquid cleaner.

Simply hold the cloth around the threads and turn the thumbscrew. Move to a new spot on the cloth and do it again. Do this until the cloth remains clean. Now, clean the threads in the case by using a dry cotton swab (Q-tip) or equivalent. Again, clean the case threads until a fresh cotton swab comes away clean.

Open the vial, and transfer a pinhead speck of silver paste to the second thread from the end of the thumbscrew. A easy way to pickup a speck of paste is to partially unfold a paper clip and use the end of the wire to acquire a tiny bit of paste. A toothpick will also work. An amount that covers the end of the wire is sufficient.

It is not necessary to spread the paste more than a little bit on the thread as the paste will spread itself every time the thumbscrew is screwed in and out of the case during battery changes.

Do not apply the paste to any other surfaces. The cover plate itself can be cleaned with a clean cloth by rubbing the slightly raised rings on the plate where it contacts the battery terminal. All you want to do is to remove any oils or dirt on the rings. Do not abrade these surfaces with a harsh material such as a pencil eraser, emery paper, etc., as this will remove the conductive nickel plating and expose the underlying aluminum, which is a poor contact conductor.

Apply paste to second thread from end of thumbscrew





P.O. Box 12080 • Rio Rancho, NM • 87119 • USA
Phone: (505) 831-1171 • Fax: (505) 831-1170 • www.lectrosonics.com • email: jason@lectrosonics.com

16 December 2010

CE - Declaration of Conformity

We, Lectrosonics Inc.
581 Laser Road NE
Rio Rancho, New Mexico 87124 USA

declare under our sole responsibility that the product:

SMB/E01, SMDB/E01

to which this declaration relates is in conformity with the following standards:

EN 300 422-2 V1.2.2 (2008-01)
EN 301 489-3 V1.4.1 (2002-08)
EN 60950-1: 2006

Test report no. R1010226-422
Date of test report: 16 November 2010
Test report no. R1010226-489
Date of test report: 18 November 2010
Test report no. R1010226-3
Date of test report: 29 November 2010

Robert Cummings
V.P. Engineering
Lectrosonics, Inc.



Opinion Number: R1010226

DIRECTIVE 1999/5/EC NOTIFIED BODY STATEMENT OF OPINION Bay Area Compliance Laboratories Corp.

Date of Issue:	2010-12-27
Applicant Details:	Lectrosonics, Inc. 581 Laser Road, Rio Rancho, NM 87124, USA
Trade Name / Model:	SMB/E01, SMDB/E01
Equipment Type:	Hybrid Microcircuit Transmitter
Serial Number:	1, 2, 3
Network Interface:	N/A
Frequency Range:	478.100 - 861.999 MHz
RF Output Power:	50mW
Modulation Type:	FM
Antenna Type:	Dipole / 2.15dBi
Notified Body ID:	Bay Area Compliance Laboratories Corp. 1274 Amshwood Ave. Sunnyvale, CA 94089 Tel: (408) 732-9162 Fax: (408) 732-9164 www.bacclab.com

Essential requirements	Specifications / Standards	Document Identification	Result
Radio Spectrum, Article 3(2)	EN 300 422-2 V1.2.2	R1010226-422	Compliant
EMC, Article 3(1)(b)	EN 301 489-3 V1.4.1	R1010226-489	Compliant
Safety, Article 3(1)(a)	EN 60950-1: 2006	R1010226-3	Compliant

Our opinion is in accordance with Annex IV of Council Directive 1999/5/EC on radio equipment and telecommunications equipment and the mutual recognition of their conformity in that the apparatus identified above complies with the requirements of that directive stated above.

Making it is recommended that the producer bear the CE mark, the notified body number(s) in respect to the sign, only when all the essential requirements have been met and if Manufacturer's Declaration of Conformity (EN 45014) has been filed with the European Commission.
Number of Annexes to this statement: none 04

CE 1313

Authorized by:
John Chan, Technical Expert

Bay Area Compliance Laboratories Corp 1274 Amshwood Ave, Sunnyvale, CA 94088, U.S.A.
Tel: (408) 732-9162 Fax: (408) 732-9164

CB04-C

NOTICE

**BE, BG, CZ, DK, DE, EE, EL, ES, FR, HR, IT, CY, LV,
LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, UK**

The use of Lectrosonics wireless microphone and IFB equipment in all or most EU member states requires a license and/or is subject to certain restrictions with regard to frequencies and geographic locations. Contact the authority in your location for accurate information regarding the use of these products. A list of market surveillance authorities in Europe is available at the following url:

http://ec.europa.eu/growth/single-market/goods/building-blocks/market-surveillance/organisation_en

You can also contact the importer for information regarding licensing and usage prior to placing the products into operation.



581 Laser Road, Rio Rancho, NM 87124 USA

T +1(505) 892-4501 -- F +1(505) 892-6243

www.lectrosonics.com/Europe

LIMITED ONE YEAR WARRANTY

The equipment is warranted for one year from date of purchase against defects in materials or workmanship provided it was purchased from an authorized dealer. This warranty does not cover equipment which has been abused or damaged by careless handling or shipping. This warranty does not apply to used or demonstrator equipment.

Should any defect develop, Lectrosonics, Inc. will, at our option, repair or replace any defective parts without charge for either parts or labor. If Lectrosonics, Inc. cannot correct the defect in your equipment, it will be replaced at no charge with a similar new item. Lectrosonics, Inc. will pay for the cost of returning your equipment to you.

This warranty applies only to items returned to Lectrosonics, Inc. or an authorized dealer, shipping costs prepaid, within one year from the date of purchase.

This Limited Warranty is governed by the laws of the State of New Mexico. It states the entire liability of Lectrosonics Inc. and the entire remedy of the purchaser for any breach of warranty as outlined above. NEITHER LECTROSONICS, INC. NOR ANYONE INVOLVED IN THE PRODUCTION OR DELIVERY OF THE EQUIPMENT SHALL BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THIS EQUIPMENT EVEN IF LECTROSONICS, INC. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL THE LIABILITY OF LECTROSONICS, INC. EXCEED THE PURCHASE PRICE OF ANY DEFECTIVE EQUIPMENT.

This warranty gives you specific legal rights. You may have additional legal rights which vary from state to state.



Made in the USA by a Bunch of Fanatics

581 Laser Road NE • Rio Rancho, NM 87124 USA • www.lectrosonics.com
(505) 892-4501 • (800) 821-1121 • fax (505) 892-6243 • sales@lectrosonics.com