Quick Start Guide

LECTROSONICS®

SM Series Transmitters

SMV
SMQV

Digital Hybrid Wireless® US 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

24 October 2018

Controls and Functions

LCD Screen

Battery Compartment Cover Plate

Battery Compartment Opener

Modulation LEDs

Power LED   AUDIO Button   FREQ Button (Tuning)

UP Arrow

Antenna

DOWN Arrow

Audio Input Jack

LCD Screen

Used to display the status of the selected function.

Power LED

Indicates power status and battery strength.

Power LED Off Feature: In normal operating mode, the DOWN and UP Arrow buttons may be used to turn the PWR LED indicators off and on. This setting does not persist through a power cycle nor does it affect the LCD backlight.

Audio Input Jack

Accommodates most lavaliere 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 fully charged 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

SM Series transmitters will work with all Digital Hybrid Wireless ® receivers in Nu Hybrid Mode, with Lectrosonics IFB receivers, and in Mode 3 for use with receivers from another manufacturer.

IFB compatibility mode

1) Set the receiver's audio controls to minimum.

2) Power up the SM unit and observe the Boot Sequence. If the Compatibility Mode for the SM unit does not match the corresponding receiver, then power off the SM transmitter.

3) From a power off condition, press and hold the Up arrow, then press the AUDIO and FREQ buttons simultaneously. The unit will boot up in the Standby Mode with the RF carrier turned off.

4) The LCD will display the current Compatibility Mode. Use the Up or Down arrow buttons to set the Compatibility Mode to match the corresponding receiver. To power off from the compatibility mode screen, press AUDIO and FREQ together.

NOTE: If your Lectrosonics receiver does not have Nu Hybrid mode, set the receiver to Euro Digital Hybrid Wireless® (EU Dig. Hybrid).

5) Press either AUDIO or FREQ button to select power setting screen and use the UP and DOWN arrows for your desired level of power (50, 100 or 250 mW).

Pr 250

7) Press AUDIO AND FREQ buttons together to exit this setup screen.

Setting Transmitter Operating Frequency

The Operating Frequency of the SM 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.

607.950

Frequency displayed in MHz

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

CH 2C

Frequency displayed as two-digit hexadecimal number

To change the Operating Frequency of the SM 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.
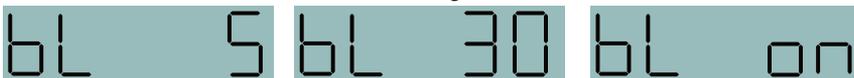
Adjusting the Low Frequency Roll-off

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

LF 35

LCD Backlight Settings

The LCD backlight can be set to turn off after either 5 minutes or 30 seconds or stay on continuously. Hold the UP arrow in while powering up the unit to enter the setup screen. Press the AUDIO button repeatedly to step through the setup items to reach the backlight settings screen. Use the UP or DOWN arrow button to select the desired setting.

Adjusting Gain for Microphone and User

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

The -20 and -10 LEDs indicate the audio signal level and limiter activity. 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 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.
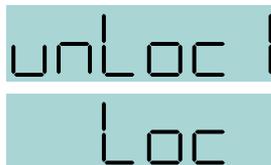
Note: If several different people will be using the transmitter and there is not time to make the adjustment for each individual, adjust it for the loudest voice.

1) Attach the microphone and turn on the transmitter.

2) Position the microphone in the location where it will be used in actual operation.

3) Observe the audio level LEDs while speaking or singing into the micro-phone at the same voice level that will be used during use. 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.

Locking or Unlocking the Control Panel

The Lock mode disables the buttons to prevent accidental changes to the settings. After the setup is complete, press and hold the UP and DOWN arrows and observe the countdown timer on the LCD. 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 the remote control. The remote control function must be enable. 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 Retaining Screw counter clockwise and rotate the cover plate to open the compartment.

2) Insert the new battery (or batteries) into the housing, positive (+) terminal first.

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

3) Replace the Cover Plate and tighten the Retaining Screw.

Do Not Cover Gore-Tex® vent

Configuring for Remote Control Use

Some transmitter settings can be changed with the Lectrosonics RM Remote Control. However, you must first configure the SM Series transmitter to accept commands from the RM:

1) Press and hold the Down Arrow Button then power on the transmitter by pressing the Audio and Freq buttons simultaneously.

Remote Control Screens

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: SM Series transmitters with firmware version 1.6 and later are factory set to "rc ON" by default.

Configuring for Power Restore

When using external power source through a battery eliminator, Power Restore will return your transmitter to the settings it had before it was powered off. This eliminates the need to power on through the unit itself.

1) Press and hold the Down Arrow Button then power on the transmitter by pressing the Audio and Freq buttons simultaneously.

Power Restore Screens

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.

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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 SM 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

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 liablility 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.

LECTROSONICS®

Made in the USA by a Bunch of Fanatics

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