

# Quick Start Guide



## Digital Hybrid Wireless® Micro Transmitter

SSM, SSM-941, SSM/E01, SSM/E01-B2

SSM/E02, SSM/E06, SSM/X



Digital Hybrid Wireless® US Patent 7,225,135

**WARNING:** Moisture, including talent's sweat, will damage the transmitter. Wrap the SSM in a plastic bag or other protection to avoid damage.

Fill in for your records:

Serial Number:

Purchase Date:

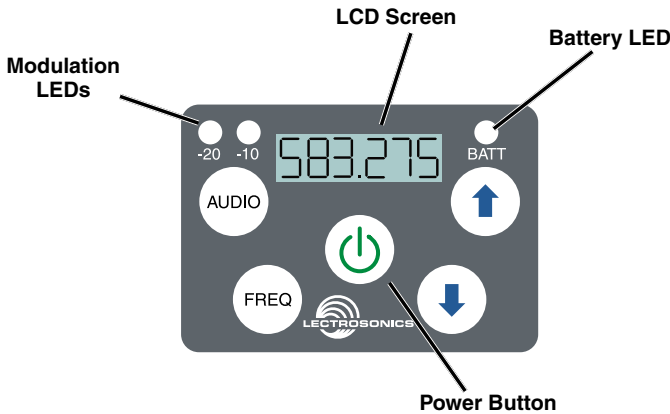
This guide is intended to assist with initial setup and operation of your Lectrosonics product.

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

[www.lectrosonics.com/manuals](http://www.lectrosonics.com/manuals)

9 December 2019

# Controls and Functions



## LCD Screen

Used to display the status of the selected function.

## Power Button

Turns the unit on and off. A brief press turns power on in a Standby Mode to make settings without interfering with other wireless systems in the vicinity.

## AUDIO Button

The AUDIO button is used to adjust the audio output level and low frequency roll-off. Each press of the button will toggle between the two settings.

## Modulation LEDs

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

## 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 LED

This LED glows green when the battery is good. The color changes to red when there is only a few minutes of operation left. The LED will blink briefly, just before the unit powers down.

## Locking The Controls

Lock the controls by holding the UP and DOWN arrows until a countdown displayed on the LCD is completed and **Loc** appears on the LCD. To unlock the controls, hold the UP and DOWN arrows until a count on the LCD is completed and **unloc** appears on the LCD. Removing the battery does not unlock the controls.

# Battery Charging

The transmitter operates from a 3.7 V rechargeable battery that will provide about six hours of operation per charge. Battery life can be monitored from current Lectrosonics receivers.

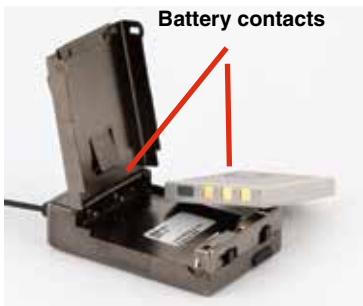
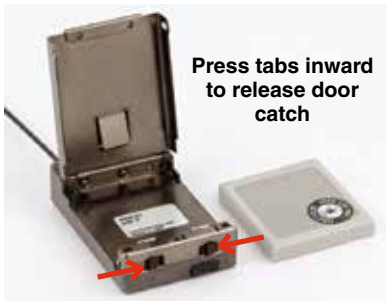


The factory supplied battery charger provides a folding NEMA 2-prong plug, and will operate from 100-240 VAC sources. The LED glows red during charging and turns green when the battery is fully charged.

**CAUTION:** Use only the factory supplied battery and battery charger.

# Battery Installation

The battery compartment and door catch are designed for simple and quick battery changes, yet prevent the door from being opened accidentally.




# Operating Instructions

## Power On



Initial Power On  
Timer Screen

Ensure that a new or fully charged battery is installed.

Press and hold the Power Button  for several seconds until a counter on the LCD progresses from 1 through 3.

## Power Off



Initial Power Off  
Timer Screen

Hold the Power Button  in and wait for the completion of the countdown to turn the power off.


When the counter reaches "0", the unit turns off.

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

## Standby Mode



Standby Screen

A brief press of the Power Button , (releasing it before the counter has reached 3,) will turn the unit on with the RF output turned off. The LCD will display a reminder that the RF output of the transmitter is turned off.

## Initial Settings

Install a charged battery and go through the **DOWN Button** menu to set up parameters for remote control, power restore and back light. Also go through the **UP Button** menu to define the settings for compatibility mode, RF power output, input configuration and the step size for frequency increments.

The setup menus are accessed by holding either the UP or DOWN arrow while powering the unit on. Press the AUDIO button repeatedly to scroll through the menu items and use the UP and DOWN arrows to select the values and settings for each item.

**NOTE:** Some Lectrosomics receivers include an IR (infrared) port to transfer settings from the receiver to the transmitter. Refer to the section on IR (infrared) Sync for details.

## DOWN Button Menu

**Hold the DOWN button while powering up the unit.** Then press the AUDIO button repeatedly to scroll through the following settings. Use the UP and DOWN arrows to select the available options under each setting.

- **rc** (remote control operation); selections: on, oFF
- **PbAc** (power-back-on after power loss); selections: 0 (stay turned off), 1 (turn back on)
- **bL** (back light duration); selections: 5 (minutes), 30 (seconds), on (always on)

## UP Button Menu

**Hold the UP button while powering up the unit.** Then press the AUDIO button repeatedly to scroll through and select the following settings below. Use the UP and DOWN arrows to select the available options under each setting.

- **CP** (compatibility mode); press the UP and DOWN arrows to select one of the following:

CP nHb	Nu Hybrid mode
CP 3	Mode 3 (contact the factory for details)
CP IFb	IFB Series mode; IFBR1/1a receivers

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

- **Pr** (RF power output in mW); selections: 25, 50 (50 or 100 mW EIRP for E06; 10 mW is the only option for E02)
- **In** - Input configuration; press the UP and DOWN arrows to select one of the following:

In dYn	BIAS 0, rES 0; use for dynamic microphones
In 152	BIAS 4, rES 0; same as otH; listed for easy selection on Lectrosonics 152 and similar mics
In SEn	BIAS 4, rES 0; same as otH; listed for easy selection on Sennheiser MKE 2 and similar mics
In SEt	Press the AUDIO button for manual setup of input for explicit control over bias voltage, input resistance and audio polarity. Press the AUDIO button to select the following parameters, then use the UP and DOWN arrows for each item to set the values.  BIAS - bias voltage on the input; selections <b>0</b> , <b>2</b> or <b>4</b> rES - input impedance; selections: <b>0</b> (300 ohms), <b>Lo</b> (approx. 4 k ohms) or <b>HI</b> (approx. 100 k ohms) AP - audio polarity (aka “phase”); selections: <b>P</b> for positive, <b>n</b> for negative (reversed)

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**NOTE:** When you press AUDIO after setting the polarity, the screen will leave this submenu and return to the **In** menu. To return to this submenu, press AUDIO repeatedly and scroll through the list again.

In otH	BIAS 4, rES 0; same as CoS but audio phase is not reversed; for various mics
In L In	BIAS 0, rES HI; use for line level input
In dPA	BIAS 4, rES Lo; use for DPA lavalier and similar mics
In b6	BIAS 2, rES 0; use for Countryman B6 and similar mics
In CoS	BIAS 4, rES 0; phase reversed; use for Sanken COS-11, M152 and similar mics
In PSA	BIAS 4, rES Lo; use for Point Source Audio lavalier and similar mics; negative polarity

- **StP** - (frequency tuning step size in kHz) selections: 25 or 100 kHz

## Set up Frequency and Gain

- 1) Use the receiver to find a clear frequency and set the transmitter to match.
- 2) Attach the microphone or signal source and adjust the input gain following the steps on the next page.
- 3) Walk test the system through the area where it will be used to make sure there are no dropouts.



## Adjust the Input Gain

The two bicolor Modulation LEDs on the control panel provide a visual indication of the audio signal level entering the transmitter. The LEDs will glow either red or green to indicate modulation levels as shown in the following table.

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

**NOTE:** Full modulation is achieved at 0 dB, when the “-20” LED first turns red. The limiter can cleanly handle peaks up to 30 dB above this point.

It is best to go through the following procedure with the transmitter in the standby mode so that no audio will enter the sound system or recorder during adjustment.

- 1) With a charged battery in the transmitter, power the unit on in the standby mode (see previous section **Powering On in Standby Mode**).
- 2) Prepare the signal source. Position a microphone the way it will be used in actual operation and have the user speak or sing at the loudest level that occur during use, or set the output level of the instrument or audio device to the maximum level that will be used.
- 3) Press and hold the AUDIO button with **Aud** and a numeral on the display (e.g. **Aud 22**).
- 4) Use the  and  arrow buttons to adjust the gain until the **-10 dB** glows green and the **-20 dB** LED starts to flicker red during the loudest peaks in the audio.
- 5) Once the audio gain has been set, the signal can be sent through the sound system for overall level adjustments, monitor settings, etc.
- 6) If the audio output level of the receiver is too high or low, use only the controls on the receiver to make adjustments. Unless the microphone or its position changes, or a different instrument is being used, leave the transmitter gain adjustment set according to these instructions. Use the audio output level control on the receiver to make adjustments for the desired level being delivered to the connected mixer, recorder, etc.

## IR (infrared) Sync

An IR (infrared) link between an associated receiver and the transmitter can be used to shorten setup time and ensure that the correct settings in the transmitter are made. The dome on the side panel of the transmitter is the port used for the IR link. The receiver is normally used to identify a clear operating frequency. Once step size, frequency and compatibility mode are set in the receiver, the settings can be sent to the transmitter via this IR link.



Place the transmitter close to the IR enabled receiver with the ports facing each other within a foot or two apart. Send the settings with the trigger on the receiver. If the settings are successfully transferred, a confirmation message will appear on the transmitter LCD.



**NOTE:** If a mismatch exists between the receiver and transmitter, an error message will appear on the transmitter LCD stating what the problem is.

## Removable Belt Clip

The belt clip may be removed by sliding it off the retaining tabs on the battery door. Tilt the clip at angle to remove it.

When mounting the belt clip onto the battery door, carefully align the openings with the retaining tabs on the door and press it into place. If the holes and tabs are not precisely aligned, the door may not close and latch properly.



**Align the openings  
and tabs precisely.**



## 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.



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