Quick Start Guide

LMb
Digital Hybrid Wireless®
UHF Belt Pack Transmitter

LMb, LMb/E01, LMb/E06, LMb/X

U.S. Patent 7,225,135

Fill in for your records:

Serial Number:

Purchase Date:

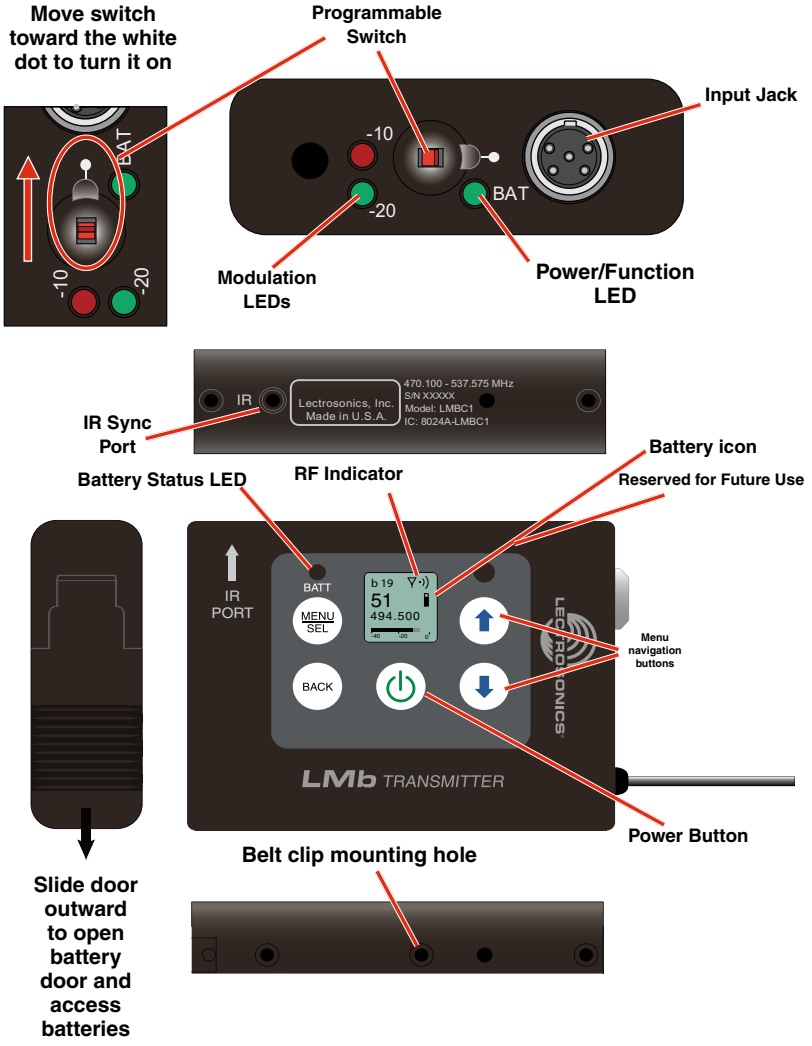
This guide is intended to assist with initial setup and operation of your Lectrosonics product.

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

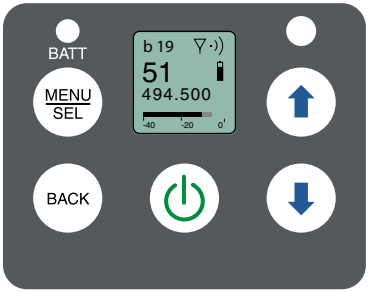
www.lectrosonics.com/manuals

15 July 2019

Controls and Features



Keypad and LCD Interface



BATT LED
Glows green when the batteries are good. As the batteries are drained, the LED will turn to a steady red at a mid-point during their life, then begin to blink red when only a few minutes of operation remain.

MENU/SEL Button
Pressing this button enters the menu and selects menu items to enter the setup screens.

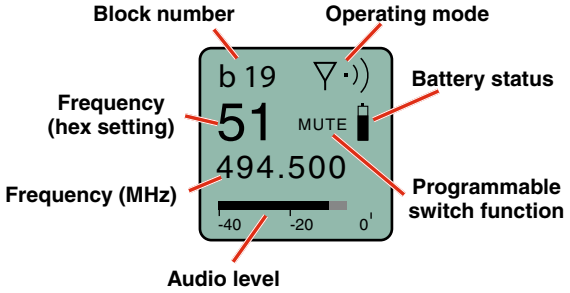
BACK Button
Pressing this button returns to the previous menu or screen.

Power Button
Turns the unit off and on and enters the power menu.

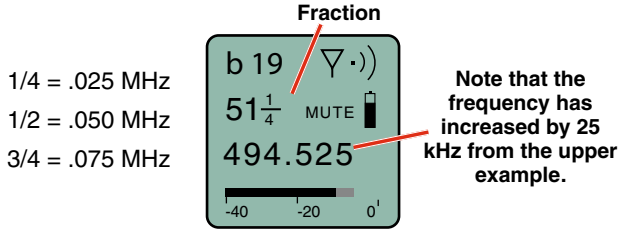
Arrow Buttons
Used to navigate the menus.

Main Window Indicators

The Main Window displays the block number, Standby or Operating mode, operating frequency, audio level, battery status and programmable switch function. When the frequency step size is set at 100 kHz, the LCD will look like the following.



When the frequency step size is set to 25 kHz, the hex number is smaller and may include a fraction.



System Setup Procedures

1) Install batteries, select the battery type and turn power on.
2) Select compatibility mode to match the receiver.
3) Connect signal source and adjust input gain for optimum modulation level.
4) Set StepSize and frequency to match receiver. Also see receiver manual for scanning procedure.
5) Turn on receiver and verify RF and audio signals are present (see receiver manual).

Battery Installation

The transmitter is powered by two AA batteries. We recommend using alkaline, lithium, or rechargeable batteries for longest life. Standard zinc-carbon batteries marked “heavy-duty” or “long-lasting” are not adequate.

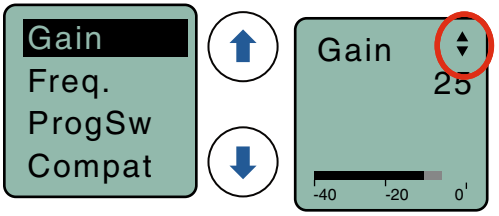
The battery status circuitry compensates for the difference in voltage drop between alkaline and lithium batteries across their usable life, so it’s important to select the correct battery type in the menu.

Because rechargeable batteries run down quite abruptly, using the Power LED to verify battery status will not be reliable. However, it is possible to track battery status using the Battery Timer function available in Lectrosonics Digital Hybrid Wireless® receivers.

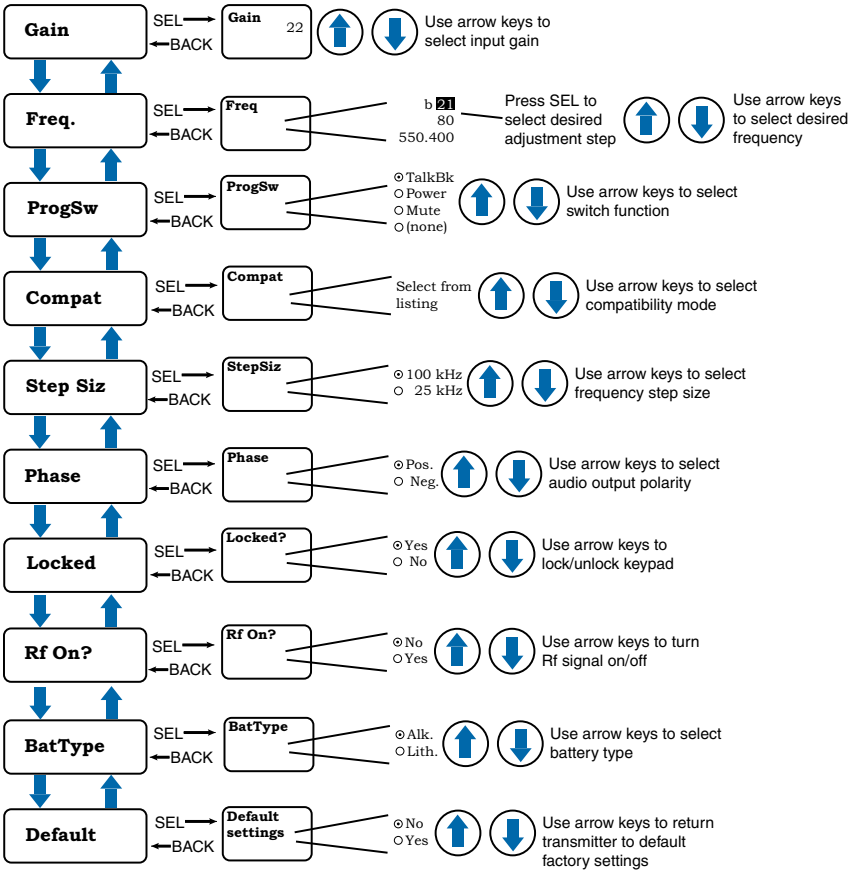
Push outward on the Battery Compartment Door and lift it to open.

Navigating Menus

The LCD and keypad interface make it easy to browse the menus and make the selections for the setup the user needs. When the unit is powered up in either the operating or the standby mode, press MENU/SEL on the keypad to enter a menu structure on the LCD. Use the ⇧ and ⇩ arrow buttons to select the menu item. Then press the MENU/SEL button to enter the menu.

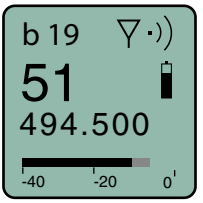


The prompt in the upper right corner may display one or both arrows, depending upon what adjustment can be made. If the changes are locked, a small padlock symbol will appear.



Powering On in Operating Mode

Press and hold the Power Button ⏻ for several seconds until a counter on the LCD progresses from 1 through 3, followed by a display of the model, firmware version, frequency block and compatibility mode.



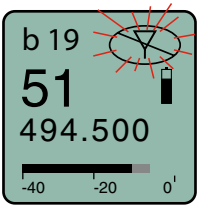
When you release the button, the unit will be operational with the RF output turned on and the Main Window displayed. Only the second and third screens will appear when the programmable function switch is used to turn on the power.

Powering On in Standby Mode

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. In this Standby Mode, the menus can be browsed to make settings and adjustments without the risk of interfering with other wireless systems nearby.

Release Power Button before the counter reaches 3 to enter standby mode

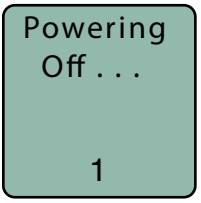
RF indicator blinks



After settings and adjustments are made, press the power button again to turn the unit off.

NOTE: Also see the section entitled ***Power Menu*** for the AutoOn feature.

Powering Off



From any screen, power can be turned off by selecting Pwr Off in the power menu, holding the Power Button ⏻ in and waiting for the countdown, or with the programmable switch (if it is configured for this function).

If the power button is released, or the top panel switch is turned back on again before the countdown is completed, the unit will remain turned on and the LCD will return to the same screen or menu that was displayed previously.

NOTE: If the programmable switch is in the OFF position, power can still be turned on with the power button. If the programmable switch is then turned on, a brief message will appear on the LCD.

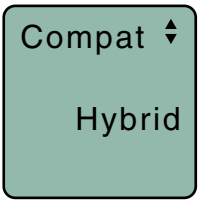
Power Menu

Pressing the power button when the unit is turned on will display a menu with several options:

- **Resume** - returns to the previous mode and screen
- **Pwr Off** - turns the unit off
- **Rf On?** - enters a screen to enable the operating or standby modes
- **AutoOn?** - allows the unit to automatically power back up after a power failure or when new batteries are installed; works in the operating mode only
- **Backlit?** - the backlight can be turned on continuously or set to turn off automatically after either 30 seconds or 5 minutes.
- **LED Off** - turns the LEDs on (Normal) or off (Dark)
- **About** - indicates latest firmware version.

Selecting the Compatibility (Compat) Mode

When used with a Lectrosonics Digital Hybrid Wireless® receiver, the best audio quality will be achieved with the system set to the Nu Hybrid compatibility mode.



Use the UP and DOWN arrows to select the desired mode, then press the ***BACK*** button twice to return to the Main Window.

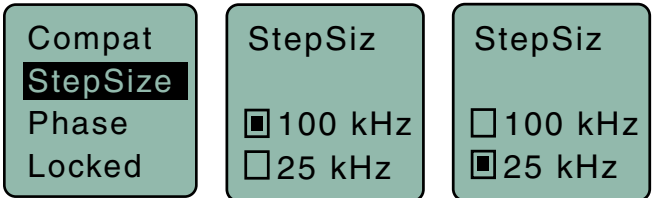
Compatibility modes are as follows:

- **Mode 3*** works with certain non-Lectrosonics models.
- **Nu Hybrid** works with all Lectrosonics Digital Hybrid receivers. The receiver must also be set to Hybrid compatibility mode.
- **IFB Series** works with Lectrosonics IFB R1/R1a analog receivers.

* Contact the factory for details of this mode

Selecting Step Size

This menu item allows frequencies to be selected in either 100 kHz or 25 kHz increments.



If the desired frequency ends in .025, .050 or .075 MHz, the 25 kHz step size must be selected.

Normally, the receiver is used to find a clear operating frequency. All Lectrosonics Digital Hybrid Wireless® receivers provide a scanning function to quickly and easily find prospective frequencies with little or no RF interference. In other cases, a frequency may be specified by officials at a large event such as the Olympics or a major league ball game. Once the frequency is determined, set the transmitter to match the associated receiver.

Adjusting the Input Gain

The two bicolor Modulation LEDs on the control panel and keypad 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.

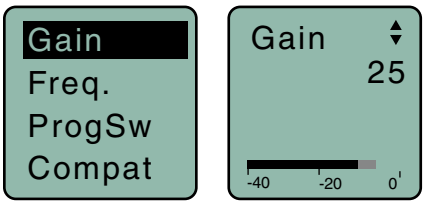
Signal Level	-20 LED	-10 LED
Less than -20 dB	Off	Off
-20 dB to -10 dB	Green	Off
-10 dB to +0 dB	Green	Green
+0 dB to +10 dB	Red	Green
Greater than +10 dB	Red	Red

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 fresh batteries in the transmitter, power the unit on in the standby mode (see previous section ***Powering On in Standby Mode***).

2) Navigate to the Gain setup screen.



3) 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.

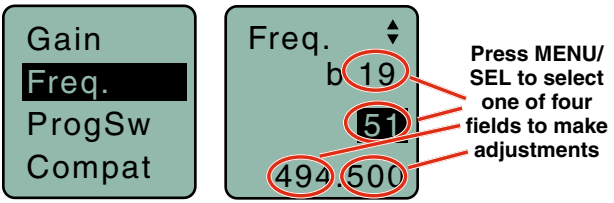
4) Use the ⬆ and ⬇ arrow buttons to adjust the gain until the **–10 dB** glows green and the **–20 dB** LED starts to flicker red during the loudest peaks in the audio.

5) Once the audio gain has been set, the signal can be sent through the sound system for overall level adjustments, monitor settings, etc.

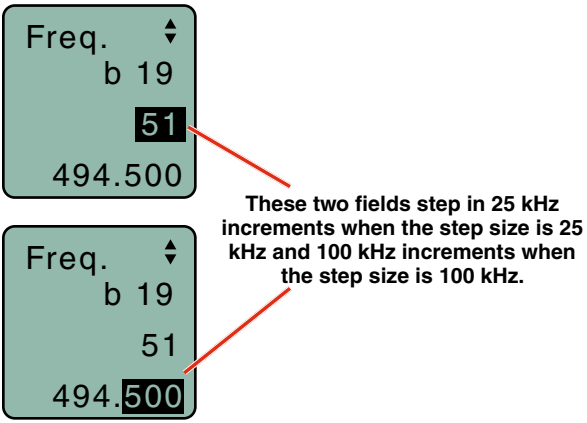
6) If the audio output level of the receiver is too high or low, use only the controls on the receiver to make adjustments. Always leave the transmitter gain adjustment set according to these instructions, and do not change it to adjust the audio output level of the receiver.

Selecting Frequency

The setup screen for frequency selection offers several ways to browse the available frequencies.



Each field will step through the available frequencies in a different increment. The increments are also different in the 25 kHz mode from the 100 kHz mode.

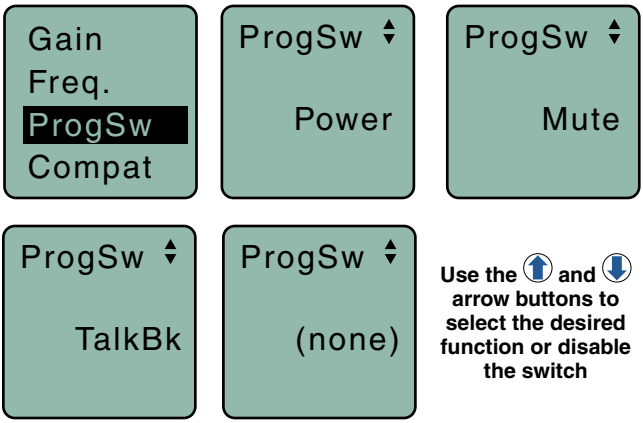


A fraction will appear next to the hex code in the setup screen and in the main window when the frequency ends in .025, .050 or .075 MHz.

Selecting Programmable Switch Functions

The programmable switch on the top panel can be configured using the menu to provide several functions:

- **Power** - turns the power on and off
- **Mute** - mutes the audio when switched on
- **TalkBk** (talkback) - redirects the audio to a different output channel on the receiver (with receivers that offer this function)
- **(none)** - disables the switch

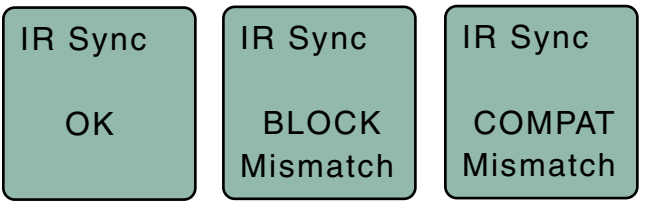


NOTE: The programmable switch will continue to operate whether or not keypad changes are locked.

IR (infrared) Sync

The opening on the side panel is an IR port for quick setup using a receiver with this capability. The transfer is initiated with a switch on the receiver.

The receiver can transfer the settings for Frequency, Step Size and Compatibility mode to the transmitter via the IR ports. When the settings are successfully transferred, ***OK*** will appear on the transmitter LCD. If a mismatch exists, an error message will appear on the transmitter LCD indicating the nature of the problem.



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®

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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