

Quick Start Guide



Camera Slot Dual UHF Receiver SRC-941



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



Fill in for your records:

Serial Number:

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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

23 May 2018

Digital Hybrid Wireless®

The Lectrosonics Digital Hybrid Wireless® uses innovative technology to combine the advantages of digital audio with the advantages of analog RF transmission. The result delivers the superior sound quality of a digital system and the excellent range of an analog system.

A proprietary algorithm encodes the digital audio information into an analog format which can be transmitted in a robust manner over an analog FM wireless link. The receiver employs state-of-the-art filters, RF amplifiers, mixers and detector to capture the encoded signal and a DSP recovers the original digital audio.

This digital/analog hybrid technique has some very beneficial properties. Because the information being transmitted is digitally encoded, immunity to noise is much higher than what a compandor can offer. Because the encoded audio is sent in analog format, spectral and power efficiency and operating range are not compromised.

Under weak RF conditions, the received signal degrades gracefully, like an analog system, delivering as much usable audio as possible at maximum range. Since the audio is free of compandor artifacts, pumping and breathing problems are also greatly reduced.

Quick Start Summary

The following checklist includes the minimum required settings to start using the receiver.

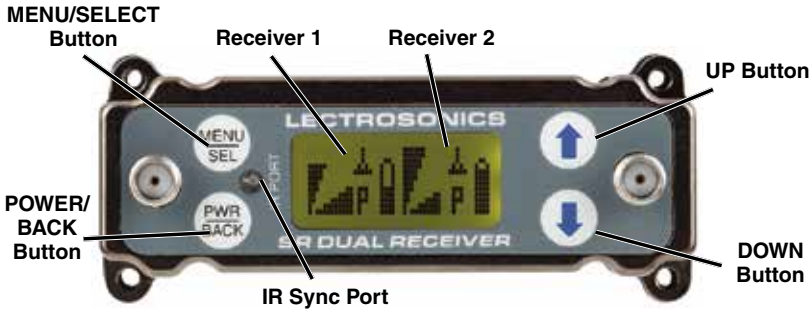
- Install either a battery sled or camera slot adapter kit (see pages 5-6).
- Connect power to the receiver (see page 6-7).
- Set the DIVMODE for single or dual channel operation (see pages 8-9).
- Set the COMPAT (compatibility) mode for the transmitters to be used (see pages 8-9).
- Find clear operating frequencies for one or both receivers (see page 10).
- Set transmitters on the matching frequencies (see transmitter manual).
- Verify transmitters are set to the same compatibility mode as the receiver (see transmitter manual).
- Adjust transmitter input gain to match voice level and mic position (see transmitter manual).
- Adjust receiver output level as needed for the camera or mixer input level desired (see pages 8-9).

IMPORTANT:

FREQ.
WARNING

Performance will be degraded if Receiver 2 is set 4.2 to 4.8 MHz higher than Receiver 1. The LCD will also flash this message periodically.

Front Panel Controls and Functions



Audio Outputs

Audio outputs and the power inlet are located on the rear panel, accessed by a variety of different adapters.

LCD Screen

A backlit, graphics-type LCD is used to set up and monitor the receiver. The Main Window shown above is used during normal operation, to display RF and audio levels, transmitter battery status, pilot tone status and diversity activity for both receivers.

MENU/SEL Button

This button is used to select menu items and enter setup screens during setup.

IR (Infrared) Sync

An IR Sync Port is used for quick setup with transmitters that offer this feature. Settings for frequency, step size, compatibility mode and talk back are transferred from receiver to transmitter via the IR ports.

NOTE: Selected compatibility mode and talk back will only sync if they are available options on the transmitter you are syncing with.

PWR/BACK Button

Press the PWR/BACK switch to turn the power on. Press and hold it until the display goes blank to turn power off. It also functions as a “back” button while navigating the various menus and setup screens to return to the previous screen or menu item.

The firmware “remembers” whether the receiver was turned on or off after power is disconnected, and it returns to that state when power is restored. This allows the receiver to power up and down as the camera or external supply is turned on and off.

Press the PWR/BACK button from the Main Window to briefly display the external power voltage.

UP/DOWN Arrow Buttons

The UP and DOWN arrow buttons are used to select various options and adjust values in the setup screens, and provide secondary functions such as locking out the panel to guard against accidental changes.

Installing Rear Panel Adapters

Installation of the rear panel output/power adapters is the same for all models.



Panels are held in place by two Phillips head screws on the sides of the housing.



Connections between the panel and main circuit board are made via miniature mating connectors.



Align the mating connectors and slide the panel straight into the housing until the screw holes align with the housing.

Battery Adapters

Battery sled adapters configure the receiver for standalone use or to provide battery backup power. Several options are available:

- SRBATTSLLEDTOP
- SRBATTSLLEDBOTTOM
- SR9VBP (inserts into the SLED adapters)

SRBATTSLLEDTOP



SRBATTSLLEDBOTTOM

The battery sled adapters accept L and M type video camera rechargeable batteries and the optional SR9VBP 9 volt battery case.

L or M type video camera batteries mount directly onto the battery sled



SR9VBP battery case for two 9 volt batteries

The battery sled adapters do not include charging circuitry. Batteries must be charged with their respective chargers. The adapters include an integral circuit that automatically selects between the battery and the external source, whichever delivers the highest voltage.

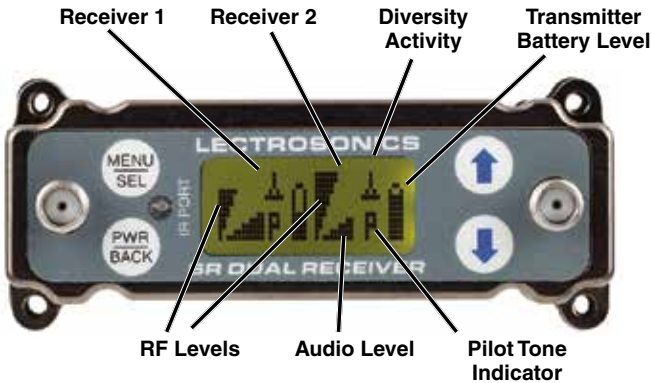
External Power Supply



DCR15/4AU

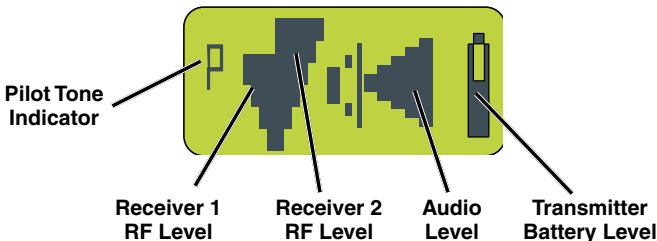
Power supply with a standard C14 inlet and locking LZR coaxial output connector; 100-240 VAC in, 15 VDC regulated output; 4A max.

Main Window (LCD)



The Main Window displays information concerning the condition of the Pilot Tone, antenna phase, RF and audio signal levels and battery conditions for both the receiver and the associated transmitter.

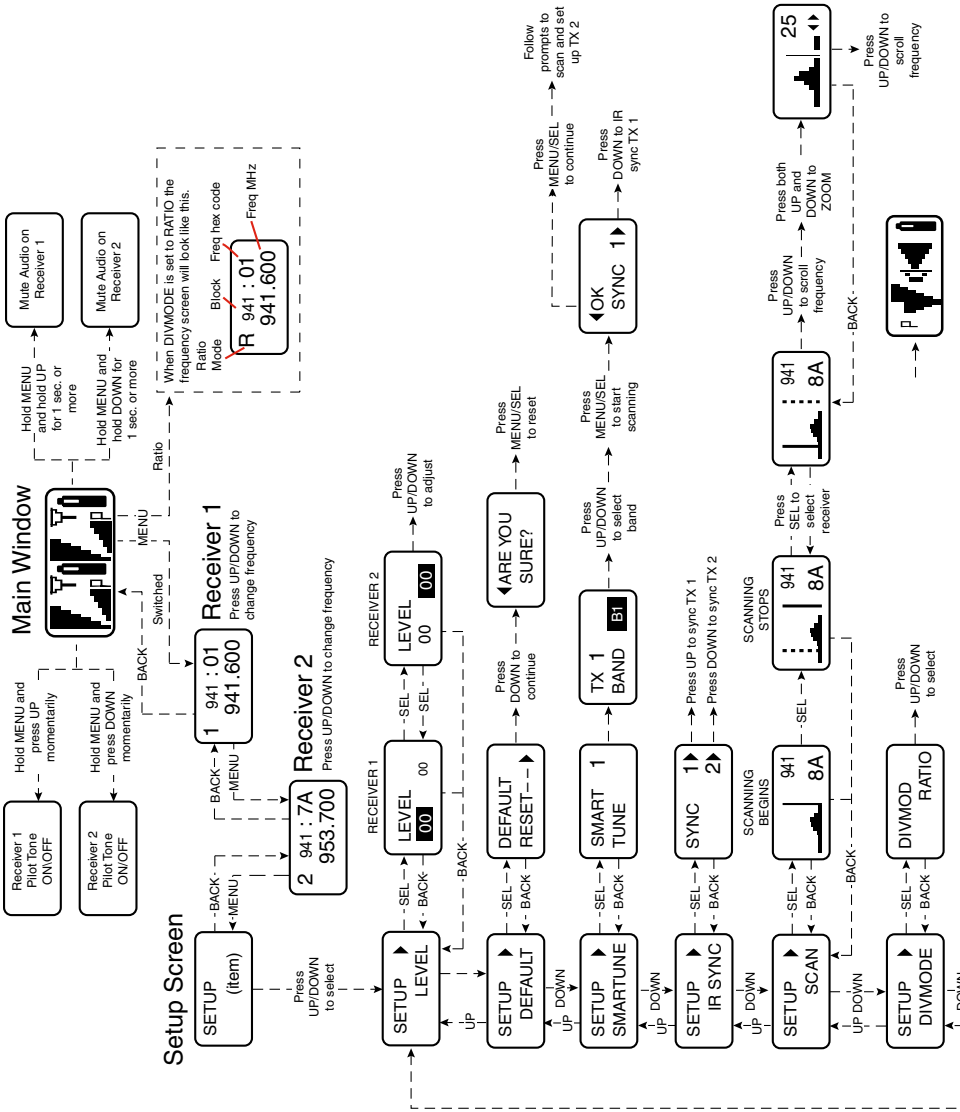
NOTE: When the **RATIO DIVERSITY** mode is selected, both receivers are combined to pick up the same transmitter, so the Main Window will display a single audio channel.

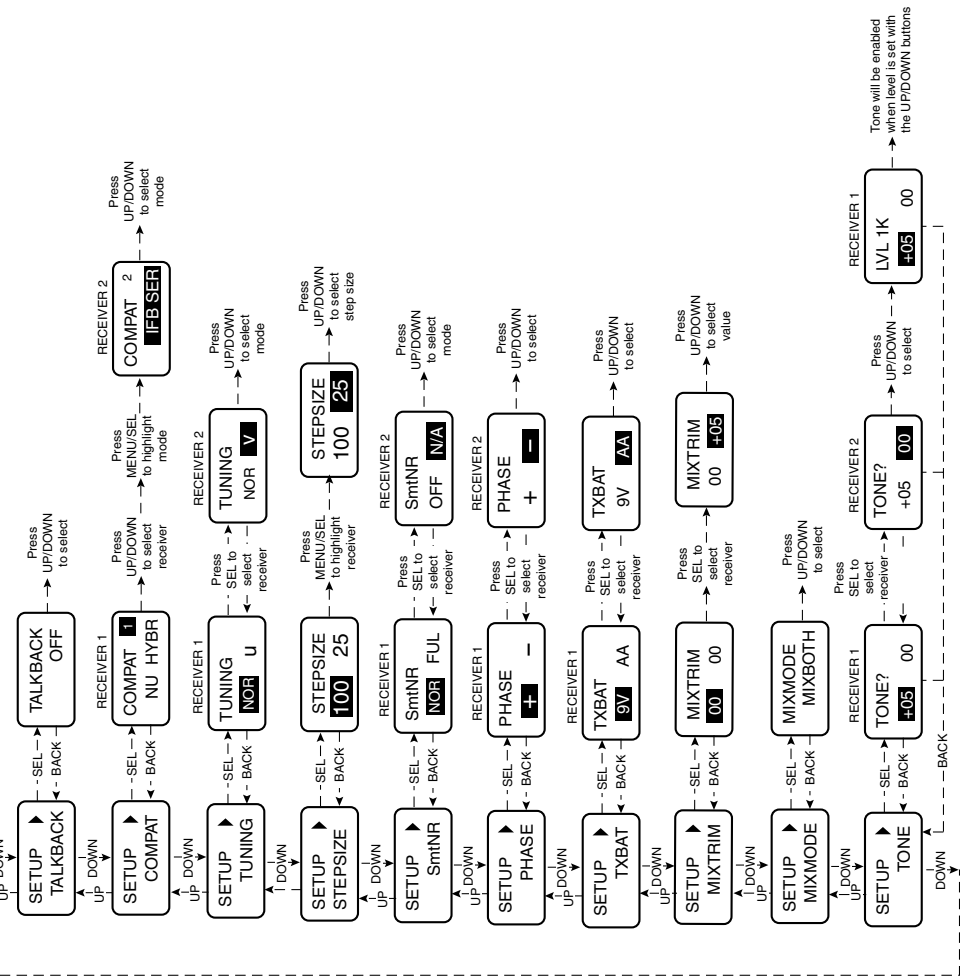


Pressing the MENU/SEL button accesses the menus and screens for setting up the receiver and searching for clear frequency channels.

Navigating the LCD

Note: Press the BACK button from the Main Window to briefly display the external power supply voltage.



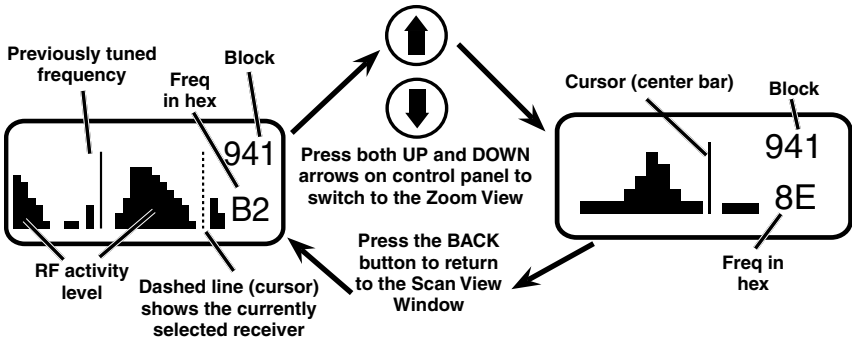


Tone will be enabled when level is set with the UP/DOWN buttons

Scanning for Clear Frequencies

Scan Window

Zoom View Window



First, **turn off all of the transmitters** you intend to use with the receiver.

Navigate to the SETUP/SCAN screen and press the MENU/SEL button to start the scanner. The display will switch to the **Scan Window** (see illustration above) and start scanning immediately. Allow the receiver to scan across the entire tuning range at least once, then press the MENU/SEL button to stop the scanning.

Scroll through the screen with the UP and DOWN buttons and find a frequency where no (or very weak) RF signals are present. Press the PWR/BACK button to set the receiver to this new frequency.

Press both the UP and DOWN buttons at the same time to switch to the **Zoom View Window** (see illustration above). In this view, the cursor remains fixed in the center of the screen and the background scrolls behind it. The frequency can be stepped up and down in 100 kHz increments using the UP and DOWN arrow buttons.

When the receiver is configured for SWITCHED diversity (dual channel mode), two cursors will appear when the scanning is stopped. Press MENU/SEL to toggle between the two receivers. The cursor for the selected receiver will be a dashed rather than solid line. Select each receiver and use the UP and DOWN buttons to locate a frequency with no (or very weak) RF activity.

Keep the frequencies of the two receivers at least 700 kHz apart to minimize de-sensing (short range) issues. This spacing is a “worst case” approximation assuming the transmitters are about 25 feet from the receiver antennas.

Data gathered during a scan is stored until it is intentionally erased or the power is turned off. Previous data will remain and subsequent scans can be made to search for additional signals or to accumulate higher peaks.

To clear the scan memory and screens, press the back button several times to return to the Main Window, then press and hold the PWR/BACK button briefly. As soon as **Powering off...** appears on the display, release the button. The receiver will remain turned on, and the scan data will be erased.

Set your transmitter to the same frequency as shown on the receiver display, turn the transmitter on and verify that a strong RF signal is present.

Mounting and Orientation

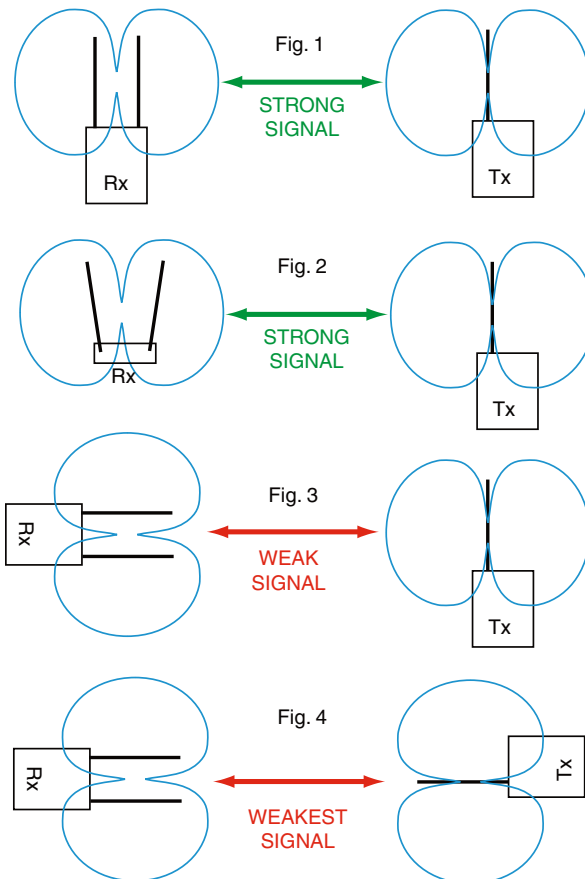
A variety of accessories are available to enable various mounting options. For maximum operating range, the antennas should be vertical and above the camera and other equipment. The AMJ Rev. A antenna is joined so the whips can be oriented vertically regardless of the orientation of the receiver.

Maximum sensitivity is perpendicular to the whip, so an ideal setup is shown in Fig. 1 and Fig. 2 where the receiver is mounted in either a vertical or horizontal position with the whips oriented vertically.

Fig. 3 depicts the receiver and antenna whips oriented horizontally, which places the null of the receiver antenna pattern pointing toward the transmitter. The result, of course, is a weak signal entering the receiver.

Fig. 4 depicts the worst setup where the nulls in both receiver and transmitter patterns face one another.

The transmitter antenna whips can point upward as shown in these diagrams, but they will work just as well with the whip pointing downward. Mount the transmitter so that the whip is vertical and not in direct contact with the wearer's body or metallic objects in clothing and costuming.



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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