

# SOUND DEVICES



## SL-6

Powering and Wireless System for the 688

## User Guide

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FCC Part 15.19(a)(3)

## Manual Conventions

Symbol	Description
>	This symbol is used to show the order in which you select menu commands and sub-options, such as: Main Menu > Audio indicates you press the Menu button for the Main Menu, then scroll to and select Audio by pushing the Control Knob.
+	A plus sign is used to show button or keystroke combinations.  For instance, Ctrl+V means to hold the Control key down and press the V key simultaneously. This also applies to other controls, such as switches and encoders. For instance, MIC+HP turn means to slide and hold the MIC/TONE switch left while turning the Headphone (HP) encoder. METERS+SELECT means to hold the METERS button down as you press the SELECT encoder.
ⓘ	A note provides information and important related recommendations. The text for notes also appears italicized in a different color.
⚠	A cautionary warning about a specific action that could cause harm to you, the device, or cause you to lose data. Follow the guidelines in this document or on the unit itself when handling electrical equipment. The text for cautionary notes also appears in a different color, bold and italicized.

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[www.sounddevices.com](http://www.sounddevices.com)

support@sounddevices.com

Sound Devices, LLC  
E7556 Road 23 and 33  
Reedsburg, Wisconsin USA

Direct: +1 (608) 524-0625  
Toll Free: (800) 505-0625  
Fax: +1 (608) 524-0655

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## Revision History

This table provides the revision history of this guide.

Rev#	Date	Firmware Version	Description
1-A	June 2015	2.00	Initial Official Publication
1-B, 1-C	Aug 2015	2.00	Added & revised section on "Automatic Receiver Output Setup" on page 19.
3-A	April 2016	3.00	Added information on new RF scanning and frequency assignment feature.
3-B	June 2016	3.10	Added new information on turning off power to individual Rx slots.  Also added interactive links to new Demo Videos for some features, such as RF scanning and IR Sync.
4-A	Feb 2017	4.50	Added "Receiver Details Screen - Example C" section detailing new support for the Sennheiser EK-6042 two-channel wireless receiver.
4-B	July 2018	4.53	Added "Receiver Details Screen - Example A" section detailing new support for the Audio Limited A10-RX dual diversity wireless receiver and also instructions for attaching SL-6 to 688 (previously doc'd in discontinued Quick Start Guide)
4-C	Nov 2018	4.54	Added new A10 User Groups feature to "Receiver Details Screen - Example A" section



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# SL-6 Powering and Wireless System

The SL-6 offers built-in NP-1 battery powering for the 688 mixer, slot receivers, plus four additional DC outputs for external peripherals, as well as built-in antenna distribution.

Using Sound Devices' SuperSlot™ interconnection standard, the SL-6 offers all powering, monitoring, audio interconnection and control needed for SuperSlot-compatible receivers. Its RF scan feature provides quick coordination and configuration of SuperSlot RX.

## Topics in this section include:

- ▶ **Attaching SL-6 to 688**
- ▶ **Front Panel**
- ▶ **Right Panel**
- ▶ **Left Panel**
- ▶ **Powering with the SL-6**
- ▶ **Turning Off Power to Rx Slots**
- ▶ **Using Antenna Distribution**
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  - ▶ Automatic Receiver Output Setup
  - ▶ Receiver Details Screen - Example A
  - ▶ Receiver Details Screen - Example B
  - ▶ Receiver Details Screen - Example C
  - ▶ Receiver Details Screen - Example D
- ▶ **Scanning for Radio Frequencies**

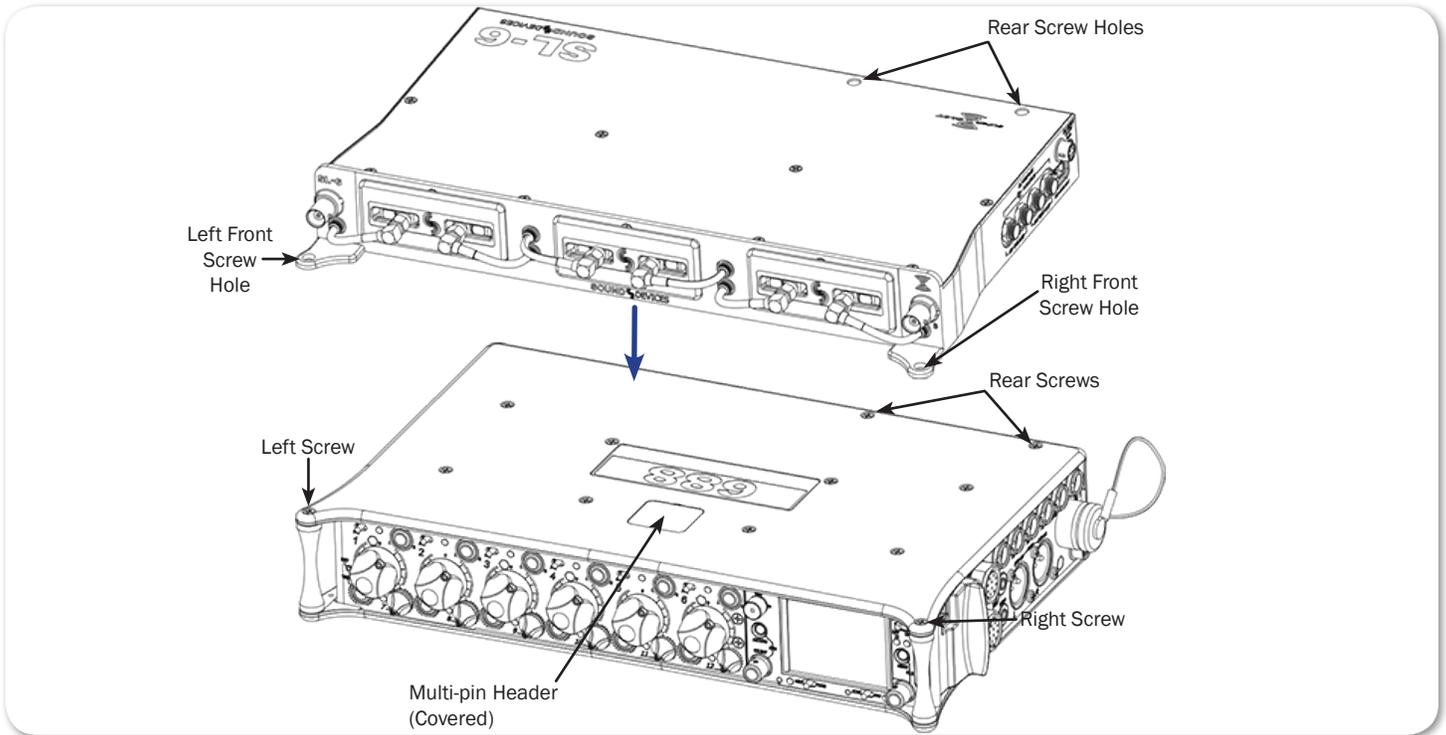
## Attaching SL-6 to 688

The SL-6 attaches to the top panel of the 688. Tools needed to attach the accessory to your mixer include a small Phillips® (cross-head) screwdriver and a flat tool, such as a jeweler's screwdriver.

### To attach the SL-6:

1. Turn the mixer off and disconnect power supply and batteries. Do not connect the SL-6 with mixer on or power sources connected.
2. Remove the disposable protective cover over the multi-pin header from the top panel of the mixer, using a small flat tool. (A jeweler's screwdriver works well.) The protective cover is attached with adhesive.
3. Remove the right and left screws from the front corners of the mixer and the two rear screws along the back right edge of the mixer's top panel.

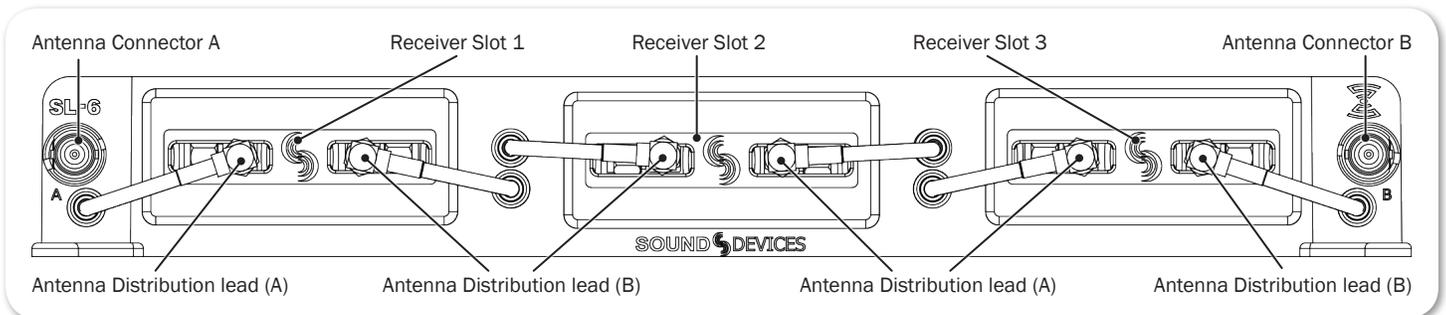
① *Keep all four screws; you will need to reuse them to attach the SL-6.*



4. Connect the supplied ribbon cable to the multi-pin header on the SL-6.
5. With the mixer positioned on a flat, stable surface, hold the SL-6 in hand, and connect the other end of the ribbon cable to the mixer.
6. Insert the excess ribbon cable into the cavity behind the header on the SL-6 while lowering the SL-6 into position, aligning the screw holes on both devices. Ensure the ribbon cable is fully within the cavity and not pinched between the SL-6 and mixer.
7. Using a screwdriver, drive the four screws through the SL-6 and into the mixer—two into the rear locations along the back right edge of the top panel and two others into the right and left front corners.

## Front Panel

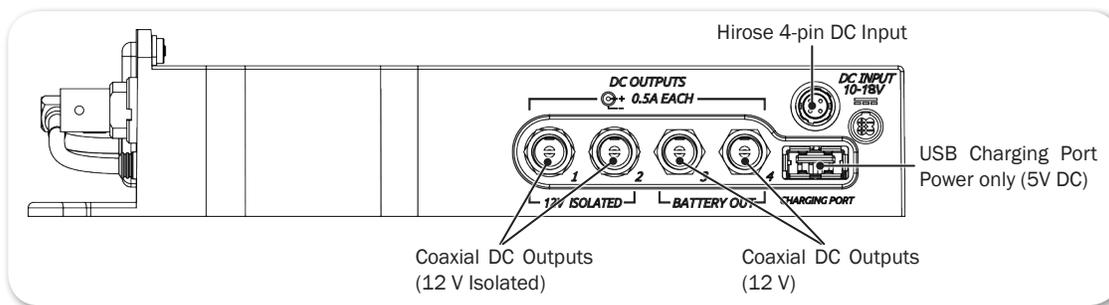
The front panel of the SL-6 has the following features:



FEATURE	DESCRIPTION
Receiver Slots	Each slot accepts one (single- or dual-channel) SuperSlot or unislot receiver. The connection provides power to the receiver and connects the receiver's audio output directly to the 688.
Antenna Distribution leads	SMA connectors with right-angle adapters are used to connect receivers to the SL-6 antenna distribution system.
Antenna Connectors	BNC connectors are used for attaching external antennas to the SL-6 antenna distribution system.  <i>① Use BNC to SMA adapters, included with the SL-6, for antennas with SMA connectors.</i>

## Right Panel

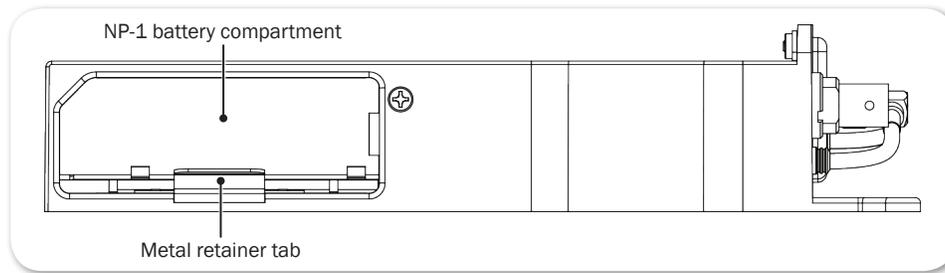
The right panel of the SL-6 has the following features:



FEATURE	DESCRIPTION
Hirose 4-pin DC Input	Hirose 4-pin DC input for powering the SL-6 and 688. Power must be attached to this connector or an NP-1 battery must be inserted to power the SL-6 and 688.
Coaxial DC Outputs (12 V Isolated)	Isolated 12 V DC outputs that draw from the active SL-6 power source (Hirose 4-pin or NP-1). Each output is on by default but can be switched off from the POWER section of the Main menu.
Coaxial DC Outputs (12 V)	12 V DC outputs that draw from the active SL-6 power source (Hirose 4-pin or NP-1). Each output is on by default but can be switched off from the POWER section of the Main menu.
USB Charging Port	Standard USB 5 V DC output that draws from the active SL-6 power source (Hirose 4-pin or NP-1).  <i>① The USB port on the SL-6 is designed for charging only, not for data transfer.</i>

## Left Panel

The left panel of the SL-6 provides the NP-1 battery compartment, which accepts NP-1 batteries (14 V, Li-ion or NiMH).



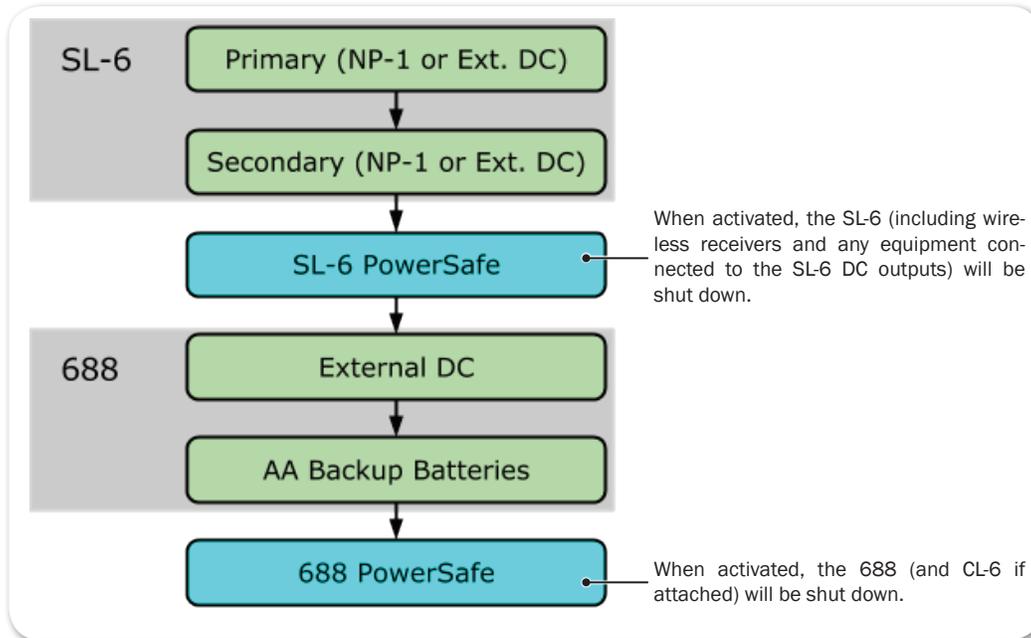
### To insert an NP-1 battery:

1. Pull the retainer tab out until it clicks. It will stop when protruding about 1 inch from the unit.
2. Place the end of the NP-1 battery with the metal contacts into the battery compartment with contacts facing down.
3. Push the NP-1 battery into the battery compartment until the retainer tab securely snaps over the end of the battery.

## Powering with the SL-6

The SL-6 features two power inputs: NP-1 battery and external DC. The SL-6, its attached receivers, the 688 (and CL-6, if connected), and any devices powered from the SL-6 DC outputs require one of these power sources to operate. When both SL-6 power sources are depleted or disconnected, the SL-6 Power-Safe™ battery will keep the SL-6 and attached devices powered for 10 seconds while recording is stopped. If any power source is attached to the 688's external DC input, or if internal AA batteries are present, the 688 (and CL-6, if attached) will continue to operate using those power sources.

- ① *Power sources connected directly to the 688 (external DC or the internal AA batteries) will not power the SL-6 or any attached peripheral devices.*



When the SL-6 is attached, the DC voltage indicator (battery icon) on the 688’s Main screen will display NP or SL to indicate which power source is active.



External DC Power via SL-6  
Normal Voltage  
(Green)

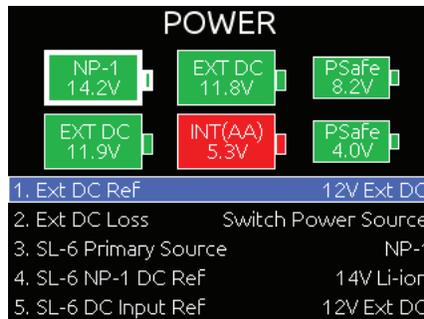


Battery Power via NP-1 in SL-6  
Warning Voltage  
(Yellow)

① *The color, which could also appear red (critical) or orange (low voltage), indicates a source’s power level.*

### Power Screen

When the SL-6 is attached to the 688, the mixer’s Power screen displays the voltage level of the attached NP-1 battery, the SL-6 external DC power source, and the SL-6 PowerSafe battery, in addition to the 688’s own power sources.



## SL-6 DC Outputs

The SL-6 right panel features four DC power outputs via locking coaxial connectors (numbered 1 through 4) and a USB charging port. Outputs 1 through 4 are 12 V DC outputs that draw from the active SL-6 power source. Outputs 1 and 2 are isolated and do not share a common ground with the system.

### To turn a DC output on or off:

1. Press the MENU button to access the Main menu.
2. Turn and press the Headphone encoder to select POWER > SL-6 Power Outputs.
3. Turn and press the Headphone encoder to select an output and set it to On or Off.

To protect NP-1 batteries from exceeding their maximum discharge current, when total power draw reaches 45 watts, the 688 displays a warning message. When total power draw reaches 50 watts (SWIT battery) or 53 watts (IDX battery), the DC outputs will be turned off in descending order (output 4 - 1) until power draw drops below 45 watts. First the USB charging port will be disabled, then DC Output 4, DC Output 3, DC Output 2, and finally DC Output 1. You can manually turn outputs back on when power draw drops below 45 watts.

## SL-6 Power Settings

When the SL-6 is attached, the following settings are available in the Main menu's POWER section.

SUB-MENU NAME	DESCRIPTION	OPTIONS
SL-6 Primary Source	Selects primary power source.	<ul style="list-style-type: none"> <li>• NP-1</li> <li>• DC Input</li> </ul>
SL-6 NP-1 DC Ref	Calibrates the power level indicator according to the type of NP-1 battery in use. The default is 14V Li-ion.	<ul style="list-style-type: none"> <li>• 14V Li-ion</li> <li>• NiMH</li> </ul>
SL-6 DC Input Ref	Calibrates the power level indicator according to the type of external DC source. The default is 12V Ext DC.	<ul style="list-style-type: none"> <li>• 12V Ext DC</li> <li>• NiMH</li> <li>• Expanded NiMH</li> <li>• 12V Lead Acid</li> <li>• 14V Li-ion</li> <li>• Full Range</li> </ul>
SL-6 Power Outputs	Sub-menu where each DC power output can be turned on or off.	<ul style="list-style-type: none"> <li>• Output 1 (12V Isolated)</li> <li>• Output 2 (12V Isolated)</li> <li>• Output 3 (Battery)</li> <li>• Output 4 (Battery)</li> <li>• USB Charging Port</li> </ul>

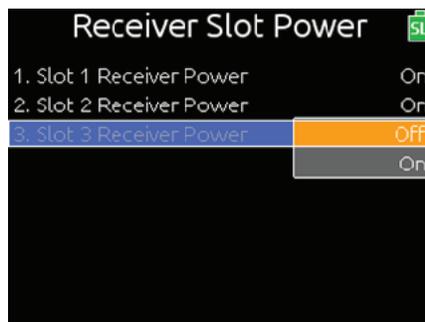
## Turning Off Power to Rx Slots

When the SL-6 is attached, the 688 provides a sub-menu option that lets users power off unused receiver slots in the SL-6.

- ① *Sound Devices recommends that you do not manually power on or off receivers from the Rx interface when connected to the SL-6.*

### To power on or off Rx slots 1-3 in an SL-6:

1. Press MENU.
2. Select SL-6 > Receiver Slot Power. The Receiver Slot Power screen appears.



3. Select Slot 1, 2 or 3. Options include On or Off. By default, all slots are powered on.

- ① *The Receiver Slot Power settings are not stored as part of factory defaults or custom configurations saved in Quick Setup files.*

## Using Antenna Distribution

Two BNC antenna connections (A and B) are provided for attaching antennas to the antenna distribution system. Antennas with an SMA connection may be used with a BNC to SMA adapter, which is included with the SL-6.

The antennas on the SL-6 provide improved diversity performance due to wider spacing than those directly mounted on the receivers. This can reduce the instances of signal dropouts due to destructive cancellation of reflecting RF signals.

Good performance will be obtained when antennas are mounted directly to the SL-6 BNC connectors. Quarter wave whip antennas are typically used in this scenario with the SL-6 housing providing the reference plane.

Better performance will usually be observed with a higher elevation of the receive antenna. This can provide a more direct line of sight to the transmitter which improves signal strength. Shoulder mounted antennas are one example. Care should be used with antenna selection in this scenario. Some antennas, such as quarter wave (also known as quarter wave whip antennas), require a ground plane (metallic reflective surface usually perpendicular to the antenna). Others, such as a half wave antenna and log periodic antenna (Also referred

to as paddle antenna), can be remotely mounted and do not require a ground plane.

For best performance, Sound Devices recommends directional remote antennas. Independent 12 volt antenna bias for powering active antennas is provided at each SL-6 antenna BNC connector.

Many variables are involved with a successful RF link. As such, results for each operation may vary.

## Antenna Bias Power

If needed, 12V bias power may be provided to each antenna.

### To supply bias power to an antenna:

1. Press the MENU button to access the Main menu.
2. Do one of the following:
  - ▶ Turn and press the Headphone encoder to select SL-6 > Antenna A Power.
  - ▶ Turn and press the Headphone encoder to select SL-6 > Antenna B Power.
3. Turn and press the Headphone encoder to turn bias power on or off.

## Radio Frequency (RF) Filter

The SL-6 provides RF filtering which can allow operation in the presence of interfering signals such as cell phones and TV stations. Selection is provided for four different frequency ranges of operation.

### To enable the RF filter:

1. Press the MENU button to access the Main menu.
2. Turn and press the Headphone encoder to select SL-6 > Antenna Filter.
3. Turn and press the Headphone encoder to select a filter range.  
Options include: Wideband, 470-700 MHz, 470-590 MHz, and 580-700 MHz.  
Wideband represents the guaranteed range of operation of an SL-6. Signals above and below these frequencies may be usable. Filter selection depends on the presence and magnitude of interfering signals. Generally, the narrowest filter setting will give the best performance.

## Using Wireless Receivers

The SL-6 supports SuperSlot and unislot receivers on a DB-25 connection. The SL-6 receiver slots provide power and audio connection to both types of receivers. Additionally, SuperSlot receivers can be controlled from the 688 interface.

### To connect antennas to the SL-6:

- ▶ Connect each antenna directly to each BNC Antenna Connector on the SL-6.

### To connect a receiver to the SL-6:

- ① *Mounting procedures for receiver models may vary. Refer to the receiver manufacturer's documentation for your receiver and follow the specific mounting instructions.*
- ⚠ ***Neither the Lectrosonics SRb5P nor SRc5P can be fitted into slot 1 of the SL-6. Using the blue spacer (provided with the receivers), both can be connected to slot 2 or 3.***
- 1. Power off the 688.
- 2. The SL-6 ships with rubber slot protectors that hold the SMA antenna connectors with right-angle adapters secure during transport. These must be removed prior to use, so remove the connector, then pull the rubber cover off to expose the chosen slot.
- ① *Do not discard protectors; Sound Devices recommends storing the connectors with their right-angle adapters in the rubber slot protectors when not in use.*
- 3. Slide the receiver into slot on the SL-6. If necessary, use the provided spacer.
- 4. Screw the four mounting screws through the receiver and into the SL-6.
- ⚠ ***Use only the screws provided with the receiver. Longer screws can damage the SL-6.***
- 5. Attach each antenna distribution lead to the receiver by screwing the SMA connector on both sides of the receiver.

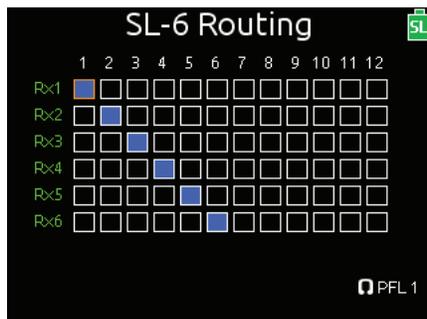
## Selecting a Wireless Source

SL-6 wireless receiver outputs are routed to 688 inputs via the SL-6 Routing screen. One wireless receiver output can be routed to one 688 input.

### To route a receiver to an input:

1. Slide the PFL switch to access the Input Settings screen for the respective input.
2. Press the Headphone encoder to display the list of available input sources.

3. Turn and press the Headphone encoder to select SL-6. The SL-6 Routing screen is displayed. Wireless receiver outputs are represented as rows and 688 inputs are represented as columns. Blue boxes indicate active assignments.



4. Do any of the following:
    - ▶ Turn the Select encoder to move the orange highlight vertically and press the encoder to activate or deactivate the route.
    - ▶ Turn the Headphone encoder to move the orange highlight horizontally and press the encoder to activate or deactivate the route.
- ① *When a wireless receiver output is routed to a 688 input, that channel's input source is set to SL-6. When a wireless receiver output is not routed from a 688 input, that channel's input source is set to OFF.*

## Accessing the Receiver Overview Screen

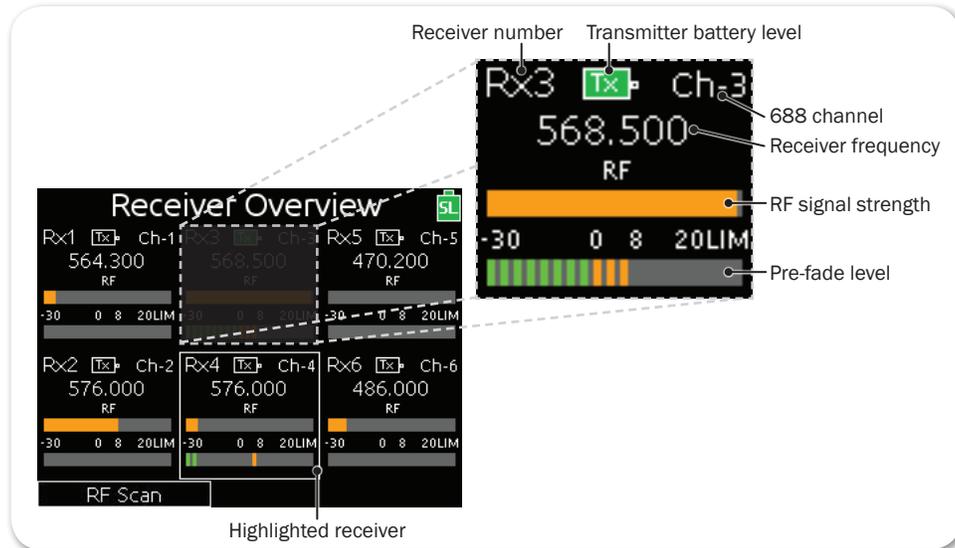
The Receiver Overview screen displays summary information for all receivers connected to the SL-6. Information on this screen is read-only.

### To access the Receiver Overview screen via button shortcut:

- ▶ HP + METERS: Press the Headphone encoder, then press the METERS button.

### To access the Receiver Overview screen from the Main menu:

1. Press the MENU button.
2. Turn and press the Headphone encoder to select SL-6 > Receiver Overview.



When supported by the transmitter, the transmitter battery level is indicated by the color of the battery icon: Green = over 50%, Yellow = over 20%, Orange = over 10%, Red = less than 10%. Whenever the transmitter battery level information is not supported by the transmitter, the icon is black.

## Unislot Receivers

Configuration of unislot receivers is done on the receivers themselves, not from the 688; therefore, the Receiver Details screen is not available for unislot receivers.

## Using SuperSlot Receivers

When the 688 is powered on, the SL-6 will power receivers automatically; attached SuperSlot receivers will boot up with their panel buttons locked, because SuperSlot receivers are configured from the 688 user interface.

- ① *Sound Devices recommends, if the 688 is powered on, you do not power down attached SuperSlot receivers. If SuperSlot receivers are powered down manually (by unlocking the receivers' front panel buttons), the receivers will not be recognized until they are powered on manually and the 688 is rebooted.*

Detailed information for each attached SuperSlot receiver is displayed on the 688 via a Receiver Details screen. Adjustments to SuperSlot receivers may be made from this screen, including RF scanning and frequency assignment. See [Scanning for Radio Frequencies](#) for more information.

The screen's title will show the type or model of the receiver. Based on your receiver, information on screen could vary; refer to the receiver manufacturer's documentation provided with your receiver(s) for more information.

**To access Receiver Details screens from the Receiver Overview screen:**

1. METERS + HP: Press the METERS button, then push in the Headphone encoder to access the Receiver Overview screen.
2. Turn and press the Headphone encoder to select a receiver.

**To directly access a specific Receiver Details screen:**

- ▶ HP + PFL (1-6): Press and hold the Headphone encoder, and then slide the PFL switch that corresponds to the receiver number and channel you want to view—left for even channels and right for odd channels.

For instance, to view the Receiver Details screen for channel 1 on the first slotted receiver, slide PFL 1 to the left. Slide the same switch right for channel 2 on the first slotted receiver.

- ① *This HP + PFL (1-6) shortcut bypasses the Receiver Overview screen that shows data for all slotted receivers.*

Receiver tuning is presented uniquely, based on each manufacturer's receiver model. Current tuning values are displayed in outlined boxes on the Receiver Details screen.

**To adjust a receiver's tuning:**

1. Access the Receiver Details screen.
2. Turn and press the Headphone encoder to enter editing mode for the selected field. The background color of the field will become blue to indicate editing mode.
3. Turn the Headphone encoder to adjust the value.
4. Press the Headphone encoder to accept the value.

For more information regarding Receiver Details screens, see:

- [Receiver Details Screen - Example A](#) (Audio Limited)
- [Receiver Details Screen - Example B](#) (Lectrosonics)
- [Receiver Details Screen - Example C](#) (Sennheiser)
- [Receiver Details Screen - Example D](#) (Wisycom)

## Automatic Receiver Output Setup

When using SuperSlot receivers with the SL-6, some receiver settings are automatically set by the mixer for optimized performance.

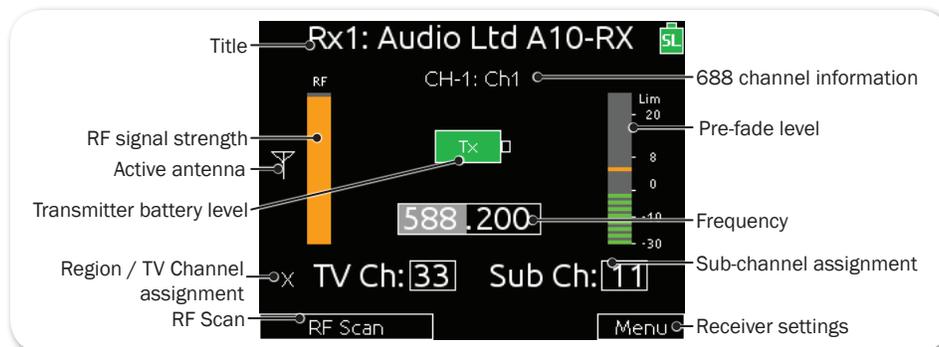
These settings include:

RECEIVER	SETTING	DESCRIPTION
Lectrosonics SRb & Lectrosonics SRC	SETUP > LEVEL = -6	To achieve optimal audio level and to match the SRb or SRC output to the mixer's input stage for best dynamic range, the 688 automatically sets the SRb or SRC's gain level to -6, and the phase to +.
	SETUP > PHASE = +	
		There is no reason to manually set the SRb or SRC to any other level. Use the 688's trim control to make any necessary adjustments.
Wisycom MCR-42S	The following settings are applied only when all receivers in the SL-6 are AES-3 compatible:	
	MENU > Advanced > LINE Mode = AES-3	
	MENU > Advanced > Edit RX1/RX2 > Audio Out > AES3 max lev = 0 dBFS	
	MENU > Advanced > Edit RX1/RX2 > Sig. phase = 0°	
	The following settings are applied whenever some of the receivers in the SL-6 are not AES-3 compatible:	
	MENU > Advanced > LINE Mode = Analog	
	MENU > Advanced > Edit RX1/RX2 > Audio Out > LINE max lev = 0 dBU	
	MENU > Advanced > Edit RX1/RX2 > Sig. phase = 0°	

## Receiver Details Screen - Example A

Information provided on the Receiver Details screen depends on your receiver model. This guide provides a few of examples.

The following example of the Receiver Details screen is for the Audio Limited A10-RX. Refer to Audio Ltd. A10-RX documentation for further explanation of the receiver and its settings.



SCREEN ELEMENT	DESCRIPTION
Title	Screen's title displays the number of the receiver followed by the manufacturer and model name.
RF signal strength	Displays the strength of the RF signal.

SCREEN ELEMENT	DESCRIPTION
Active antenna	Display icon to indicate connection to transmitter. Flashes when not connected.
Transmitter battery level	<p>Displays the level of the transmitter's battery. The transmitter battery level is indicated by the color of the battery icon and the level of the bar. Green = over 50%, Yellow = over 20%, Orange = over 10%, Red = less than 10%. When the transmitter battery level information is not supported, the icon is black.</p> <p>① <i>This information is only provided when supported and supplied by the transmitter.</i></p>
Frequency	<p>Displays the frequency to which the receiver is currently tuned. Whole number and decimal number are adjusted independently. Decimal adjustments in .025 increments.</p> <p><b>To adjust frequency:</b></p> <ul style="list-style-type: none"> <li>▶ Turn and press Headphone encoder.</li> </ul>
TV Ch:	<p>Displays region and TV Channel frequency assignment for the transmitter.</p> <p>① <i>X, Y, and Z regions are determined by TV Channel Map setting.</i></p> <p><b>To set the TV Channel number:</b></p> <ul style="list-style-type: none"> <li>▶ Turn and press Headphone encoder.</li> </ul>
Sub Ch	<p>Displays the sub-channel frequency assignment for the receiver.</p> <p><b>To set the TV Channel number:</b></p> <ul style="list-style-type: none"> <li>▶ Turn and press Headphone encoder.</li> </ul>
RF Scan	<p>Runs a scan of the A10 receiver's RF range, and then displays the frequency graph, allowing users to assign a frequency to the receiver's channels.</p> <p><b>To assign a frequency:</b></p> <ul style="list-style-type: none"> <li>▶ Use the Headphone encoder to scroll the graph; press it in to select and assign a frequency.</li> </ul>

SCREEN ELEMENT	DESCRIPTION
Menu	<p>Accesses the receiver's model-specific settings.</p> <p><b>To access receiver's settings:</b></p> <ul style="list-style-type: none"> <li>▶ Slide RTN/FAV switch right.</li> </ul> <p>Menu settings include: User Group, System info, TV Ch Map, and access to Update Firmware on the receiver.</p> <p>The User Groups feature allows for easy intuitive naming of specific frequencies for each A10 transmitter used on set, and grouped together for faster tuning.</p> <p>One user group at a time may be loaded to a receiver from an ALUG file on the SD card, inserted into a 688.</p> <p>① Each ALUG file can have up to eight user groups, and each group may have up to 32 users defined in the group. User Groups for A10 receivers are created in the Mic2Way application. For more information, see "User Groups" section in the <i>Audio Limited A10-RX User Guide</i> available as a free PDF download from the <a href="#">Audio Limited website</a>.</p> <p><b>To send a user group to A10-RX-SL receivers via 688/SL-6:</b></p> <ul style="list-style-type: none"> <li>▶ Select User Groups &gt; User &gt; Load New.</li> </ul> <div data-bbox="906 911 1331 1230" style="text-align: center;">  </div>

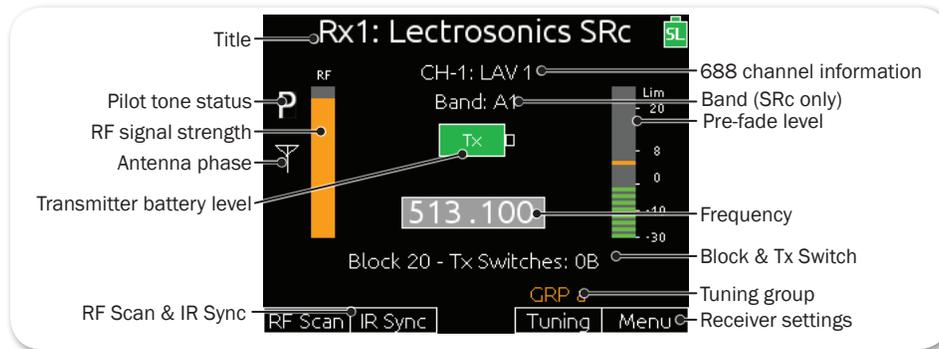


[SEE VIDEO: USER GROUPS](#)

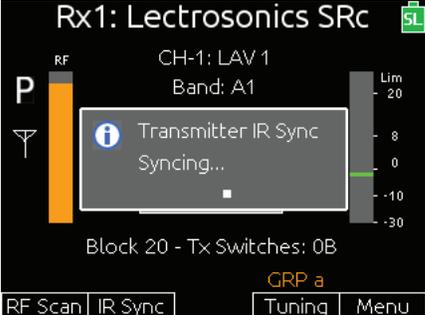
## Receiver Details Screen - Example B

The following example of the Receiver Details screen is for a Lectrosonics SRc. Refer to Lectrosonics documentation for further explanation of these settings.

① *This section applies to Lectrosonics SuperSlot-based receivers or those upgraded to SuperSlot. Earlier versions without the SuperSlot upgrade are treated as unislot receivers; therefore, the Receiver Details screen is not be accessible.*

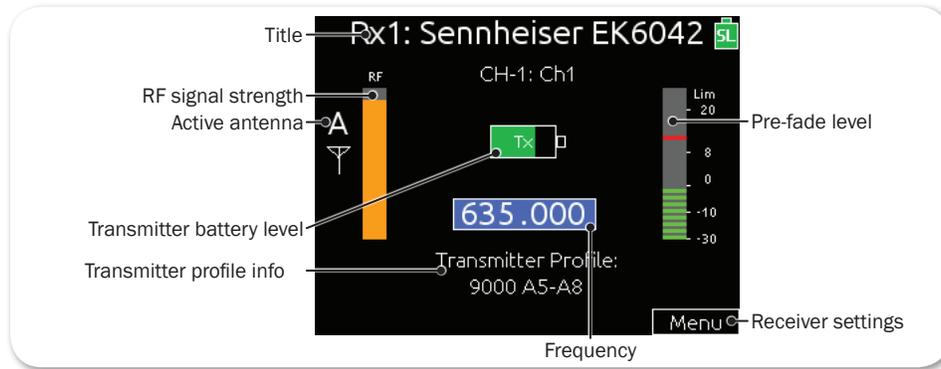


SCREEN ELEMENT	DESCRIPTION
Title	Screen's title displays the number of the receiver followed by the manufacturer and model name.
Pilot tone status	Different letters are displayed based on status of pilot tone. <ul style="list-style-type: none"> <li>• Solid P: Pilot tone from transmitter is present.</li> <li>• Flashing P: Pilot tone is not present.</li> <li>• Solid, lower-case b: Pilot tone is bypassed.</li> </ul>
RF signal strength	Displays the strength of the RF signal.
Antenna phase	The antenna icon is displayed when Diversity mode is set to Switch. Icon will flip vertically when antenna phase is inverted.
Transmitter battery level	Displays the level of the transmitter's battery. The transmitter battery level is indicated by the color of the battery icon and the level of the bar. Green = over 50%, Yellow = over 20%, Orange = over 10%, Red = less than 10%. When the transmitter battery level information is not supported, the icon is black. <p>① <i>This information is only provided when supported and supplied by the transmitter.</i></p>
RF Scan	Runs a scan of the Lectrosonics receiver's RF block or band, and then displays the frequency graph, allowing users to assign a frequency to the receiver's channels. <p><b>To assign a frequency:</b></p> <ul style="list-style-type: none"> <li>▶ Use the Headphone encoder to scroll the graph; press it in to select and assign a frequency.</li> </ul>

SCREEN ELEMENT	DESCRIPTION
<p>IR Sync</p> <p> <a href="#">SEE DEMO VIDEO</a></p>	<p>Puts the receiver into IR Sync mode directly from the 688, enabling synchronization of the transmitter frequency to the Rx frequency.</p> <p><b>To initiate IR sync:</b></p> <ul style="list-style-type: none"> <li>▶ Slide the MIC/TONE switch to the right and confirm by selecting OK when prompted. A status dialog appears while syncing is in progress.</li> </ul> 
688 channel information	Displays the name and number of the 688 channel to which the receiver is routed.
Band	<p>Displays the Lectrosonics SRc's band.</p> <p><i>① This does not apply to SRb receivers.</i></p>
Pre-fade level	Displays pre-fade audio level of the receiver's output on the 688 input to which it is routed.
Frequency	<p>Displays the frequency to which the SRb or SRc is currently tuned. Whole number and decimal number are adjusted independently.</p> <p>On the SRb, decimal adjustments are in .1 (Normal tuning) or .025 increments (Fine tuning).</p> <p>On the SRc, the decimal adjustment value for "Normal" may be set to either .1 or .025 via the Tuning Step Size menu.</p> <p><b>To adjust frequency:</b></p> <ul style="list-style-type: none"> <li>▶ Turn and press Headphone encoder.</li> </ul>
Block & Tx Switch	Displays the block number and transmitter switch value.
Tuning	<p>Displays current tuning group, such as Normal or Fine (for SRb). When adjusting frequency, values will be restricted to the selected tuning group.</p> <p><b>To cycle through tuning groups:</b></p> <ul style="list-style-type: none"> <li>▶ Slide RTN/FAV switch left.</li> </ul>
Menu	<p>Accesses the receiver's model-specific settings, such as Compatibility mode and Tuning Step Size (for SRc).</p> <p><b>To access receiver's settings:</b></p> <ul style="list-style-type: none"> <li>▶ Slide RTN/FAV switch right.</li> </ul>

## Receiver Details Screen - Example C

The following example of the Receiver Details screen is for a Sennheiser EK6042. Refer to Sennheiser documentation for further explanation of these settings.



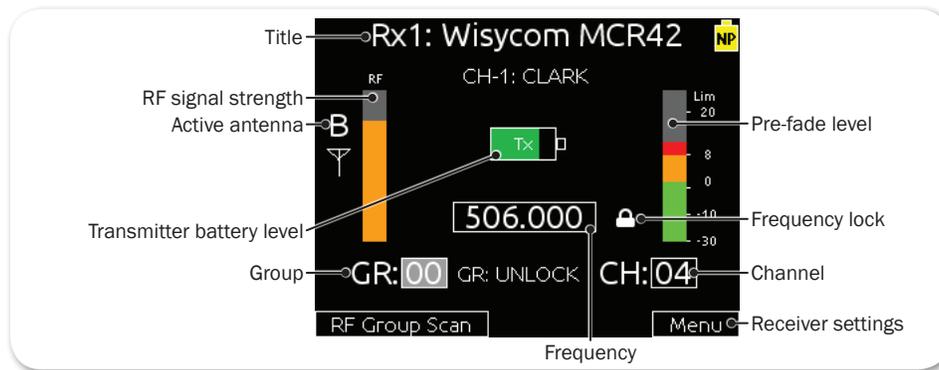
SCREEN ELEMENT	DESCRIPTION
Title	Screen's title displays the number of the receiver followed by the manufacturer and model name.
RF signal strength	Displays the strength of the RF signal.
Active antenna	Displays A or B to indicate which antenna is currently in use.
Transmitter battery level	Displays the level of the transmitter's battery. The transmitter battery level is indicated by the color of the battery icon and the level of the bar. Green = over 50%, Yellow = over 20%, Orange = over 10%, Red = less than 10%. When the transmitter battery level information is not supported, the icon is black.  ⓘ <i>This information is only provided when supported and supplied by the transmitter.</i>
Transmitter profile information	Displays information related to the preset transmitter profile compatible with the receiver.  ⓘ <i>See Sennheiser's EK 6042 Instruction Manual for more information on transmitter profiles.</i>
Pre-fade level	Displays pre-fade audio level of the receiver's output on the 688 input to which it is routed.
Frequency	Displays the frequency to which the receiver is currently tuned. Whole number and decimal number are adjusted independently. Decimal adjustments in .025 increments. Frequency range varies and is dependent on the Transmitter Profile settings of the EK-6042.  <b>To adjust frequency:</b> ▶ Turn and press Headphone encoder.

SCREEN ELEMENT	DESCRIPTION
Menu	<p>Accesses the receiver’s model-specific settings.</p>  <p><b>To access receiver’s settings:</b></p> <ul style="list-style-type: none"> <li>▶ Slide RTN/FAV switch right.</li> </ul>

### Receiver Details Screen - Example D

The following example of the Receiver Details screen is for a Wisycom MCR42. Refer to Wisycom documentation for further explanation of these settings.

- ① *This section applies to Wisycom receivers, upgraded to SuperSlot, with firmware v3.5 or later. Wisycom receivers with earlier versions of firmware are treated as unislot receivers; therefore, the Receiver Details screen is not accessible.*



SCREEN ELEMENT	DESCRIPTION
Title	Screen’s title displays the number of the receiver followed by the manufacturer and model name.
RF signal strength	Displays the strength of the RF signal.
Active antenna	Displays A or B to indicate which antenna is currently in use.
Transmitter battery level	<p>Displays the level of the transmitter’s battery. The transmitter battery level is indicated by the color of the battery icon and the level of the bar. Green = over 50%, Yellow = over 20%, Orange = over 10%, Red = less than 10%. When the transmitter battery level information is not supported, the icon is black.</p> <p>① <i>This information is only provided when supported and supplied by the transmitter.</i></p>

SCREEN ELEMENT	DESCRIPTION																		
GR:	<p>Displays the current group number of the receiver.</p> <p><b>To set the group number:</b></p> <ul style="list-style-type: none"> <li>▶ Turn and press Headphone encoder.</li> </ul>																		
RF Group Scan	<p>Runs an RF scan of the current group for the Wisycom receiver.</p> <p><b>To run an RF group scan:</b></p> <ul style="list-style-type: none"> <li>▶ From the Wisycom Receiver Details screen, slide the MIC/TONE switch to the left.</li> </ul> <p>The results of the scan will appear in a Select Group Frequency screen (shown below) from which a selected frequency may be assigned to one of the receiver's channels.</p> <div data-bbox="846 600 1273 919" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;"><b>Select Group Frequency</b> <span style="float: right;">SL</span></p> <p>Select Channel from Group 04 For Rx1:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #007bff; color: white;">Ch 10:</td> <td style="background-color: #007bff; color: white;">RF Level: 3 dBµV</td> <td style="background-color: #ffc107; color: white;">470.200 MHz</td> </tr> <tr> <td>Ch 12:</td> <td>RF Level: 5 dBµV</td> <td>487.300 MHz</td> </tr> <tr> <td>Ch 20:</td> <td>RF Level: 5 dBµV</td> <td>514.600 MHz</td> </tr> <tr> <td>Ch 33:</td> <td>RF Level: 5 dBµV</td> <td>629.800 MHz</td> </tr> <tr> <td>Ch 34:</td> <td>RF Level: 5 dBµV</td> <td>637.500 MHz</td> </tr> <tr> <td>Ch 11:</td> <td>RF Level: 6 dBµV</td> <td>471.500 MHz</td> </tr> </table> </div> <p> <a href="#">SEE DEMO VIDEO</a></p>	Ch 10:	RF Level: 3 dBµV	470.200 MHz	Ch 12:	RF Level: 5 dBµV	487.300 MHz	Ch 20:	RF Level: 5 dBµV	514.600 MHz	Ch 33:	RF Level: 5 dBµV	629.800 MHz	Ch 34:	RF Level: 5 dBµV	637.500 MHz	Ch 11:	RF Level: 6 dBµV	471.500 MHz
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Ch 34:	RF Level: 5 dBµV	637.500 MHz																	
Ch 11:	RF Level: 6 dBµV	471.500 MHz																	
Pre-fade level	Displays pre-fade audio level of the receiver's output on the 688 input to which it is routed.																		
Frequency lock	Lock icon is visible for channels in which the frequency is locked. Frequency cannot be adjusted when locked.																		
CH:	<p>The channel number of the receiver.</p> <p><b>To set the channel number:</b></p> <ul style="list-style-type: none"> <li>▶ Turn and press Headphone encoder.</li> </ul>																		
Menu	<p>Accesses the receiver's model-specific settings.</p> <p><b>To access receiver's settings:</b></p> <ul style="list-style-type: none"> <li>▶ Slide RTN/FAV switch right.</li> </ul>																		
Frequency	<p>Displays the frequency to which the receiver is currently tuned. Whole number and decimal number are adjusted independently. Decimal adjustments in .025 increments. Not adjustable when frequency is locked.</p> <p><b>To adjust frequency:</b></p> <ul style="list-style-type: none"> <li>▶ Turn and press Headphone encoder.</li> </ul>																		

## Scanning for Radio Frequencies

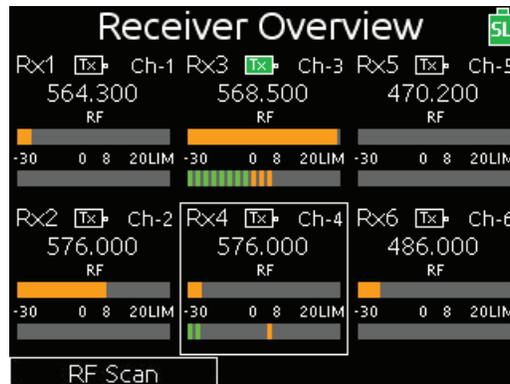
When the SL-6 is fitted with SuperSlot-compatible receivers, an RF Scan feature is enabled. Initiated from the Receiver Overview screen or a Receiver Details screen, the system scans the RF spectrum for RF signal activity and displays a visual image of the scan on the 688's LCD, showing what frequencies within the scanned range are free of RF interference.

- ① *When initiated from the Receiver Overview screen, the scan utilizes the SuperSlot receivers and draws the activity of the full range of the receivers. When initiated from a specific Receiver Details screen, the system utilizes that chosen receiver to run the scan, and will therefore be limited by the range of the receiver.*

From the scan, you may select a frequency and assign it to an available receiver channel.

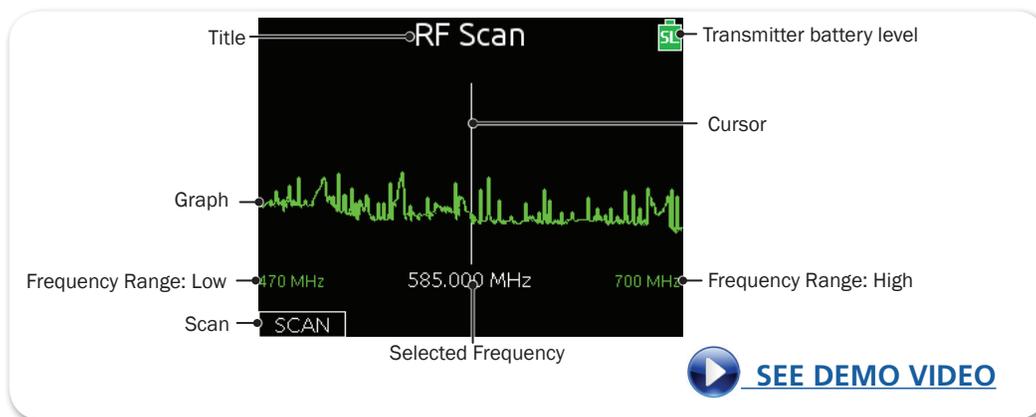
### To initiate an RF scan and assign a frequency :

1. Press HP + METERS to view the Receiver Overview screen.



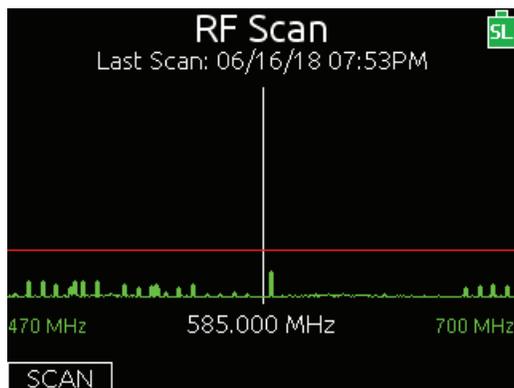
2. Slide the MIC/TONE switch to the left.

The scan displays a graph showing signal activity of the RF spectrum from low to high frequency, with a white vertical line marking the cursor position, beneath which is displayed the selected frequency.



- ① *A scan can typically take a number of seconds. Although, with three slot-in receivers in the SL-6, the RF Scan's triple-scan capability utilizes parallel processing to cut the time it takes to run the scan by one-third.*

The RF Scan screen may appear slightly different, depending on the receiver running the scan. For example, the following image shows a scan on a Wisycom MCR-42, which also displays the set squelch level (red horizontal line) on the RF Scan screen.



3. Do any of the following:
  - ▶ Turn the Select encoder to zoom in or out.
  - ▶ Turn the Headphone encoder to move the cursor and select a frequency.
  - ▶ Slide the MIC/TONE switch to the left to perform the scan again.
4. Press in the Headphone encoder to select a frequency. The Frequency Assign screen appears.

The Frequency Assign screen shows a list of receiver channels. The selected frequency is 548.200 MHz. The screen displays 'Assign 548.200 MHz To:' and an 'SL' icon in the top right corner.

Receiver	Frequency
Rx1: --	
Rx2: --	
Rx3: Wisycom MCR42	548.200 MHz
Rx4: Wisycom MCR42	585.000 MHz
Rx5: Lectrosonics SRb	670.500 MHz
Rx6: Lectrosonics SRb	668.100 MHz

As shown in the illustration, the text of receiver channels that are available for assignment appear white. Gray text indicates receivers that are outside the range of the chosen frequency, and gray hyphens (--) appear when the SL-6 slot is empty.

- ① *For Wisycom receivers, some groups or channels may be locked, and therefore are unavailable for frequency assignment. In these cases, the text will appear gray.*
5. Use the Headphone encoder to select an available channel.

# SL-6 Specifications

This section provides specifications for the SL-6 powering and wireless system, an optional accessory for the 688.

Features and specifications are subject to change. Visit the [Sound Devices website](#) for the latest product information.

## Topics in this section include:

- ▶ Powering
- ▶ Antenna Distribution
- ▶ Physical

## Powering

NAME	DESCRIPTION
External Power Supply	<ul style="list-style-type: none"><li>• 10 to 18 V on locking 4-pin Hirose connector</li><li>• Pin-4 = (+), Pin-1 = (-)</li><li>• Mates with gold Hirose #HR10A-7P-4P (DigiKey# HR110-ND) or silver Hirose #HR10-7P-4P (DigiKey# HR100-ND) locking connector</li></ul>
PowerSafe	<ul style="list-style-type: none"><li>• 10 second power reserve to SL-6, 688 (and CL-6 if connected), and attached peripherals.</li></ul>
USB Charging port	<ul style="list-style-type: none"><li>• 5 V, 2 A max</li></ul>
DC Outputs 1-2	<ul style="list-style-type: none"><li>• Locking, coaxial connector</li><li>• Isolated</li><li>• 12 V, 0.5 A max</li></ul>
DC Outputs 3-4	<ul style="list-style-type: none"><li>• Locking, coaxial connector</li><li>• 10 to 17 V, 0.5 A max</li></ul>

## Antenna Distribution

NAME	DESCRIPTION
Antenna impedance	<ul style="list-style-type: none"><li>• 50 ohm</li></ul>
Antenna bias voltage	<ul style="list-style-type: none"><li>• 12 V @ 200 mA</li></ul>
Antenna filter ranges	<ul style="list-style-type: none"><li>• 470-870 MHz</li><li>• 470-700 MHz</li><li>• 470-590 MHz</li><li>• 580-700 MHz</li></ul>

## Physical

NAME	DESCRIPTION
Dimensions (H x W x D)	<ul style="list-style-type: none"><li>• 1.4 in x 12.7 in x 5.6 in</li><li>• 3.6 cm x 32.3 cm x 14.2 cm</li></ul>
Weight (without receivers)	<ul style="list-style-type: none"><li>• 2 lbs 6 oz</li><li>• 1.08 kg</li></ul>





**Sound Devices, LLC**  
E7556 Road 23 and 33  
Reedsburg, Wisconsin 53959  
USA

Phone: +1 (608) 524-0625  
Fax: +1 (608) 524-0655

**Customer Support**

Toll Free: (800) 505-0625

Email: [support@sounddevices.com](mailto:support@sounddevices.com)  
<http://www.sounddevices.com/support>  
<http://forum.sounddevices.com>

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