

# ListenRF

Stationary RF Brochure



**LISTEN**  
TECHNOLOGIES

# Connecting People to Positive Experiences

## Listen Technologies

Whether in a theater, house of worship, or at a sporting venue, individuals want to experience every word and every moment. That's what they came for, and they deserve to participate by hearing every single word.

Listen's line of stationary RF products deliver a carefully tuned system of products that makes the process of specifying, ordering, installing and using the system simple and straight forward. A Listen RF system is a low power radio station that broadcasts sound to receivers within the range of the transmitter. A wide range of portable and stationary receivers allow you to customize your system to your specific needs. Listen products deliver broadcast quality audio and are simple to use. **Don't miss a single sound.** Listen.

### Personalize



Listen's vision is to deliver a personalized, enriching auditory experience in any setting. Consider attending a lecture and not being able to fully understand what is being said. With a Listen system, every word can be heard and understood. What if the lecture is in English and you can only understand Spanish? The same technology can deliver the interpreted language directly to your ears. When you can hear and understand – the experience truly becomes **personal!**

### Simplify



Listen is committed to keeping it simple. You will find products that are easy to use and a company that is easy to work with. Listen thinks through the finer details in the design and production of products – for you the customer. From pre-setting a default frequency on a transmitter so that it can be used right out of the box to channel displays on both the transmitter and receiver – the use of Listen's products is effortless. Listen's full-time technical support team is passionate about what they do and you can depend on them to solve any equipment issues with confidence. When you can easily use Listen products with the support you need – the experience truly becomes **simple!**

### Customize



One size does not fit all. Listen systems are designed to specifically fit your needs. While Listen's systems are designed for simplicity, feel free to inter-change or add components to create the right system for you. Listen's team is ready to assist you with identifying exactly what you need. When you can build the system that makes sense for your circumstances – the experience truly becomes **custom!**

# ListenRF

## Don't Miss A Single Sound.

Listen Technologies improves and personalizes how people interact with the sounds they care about most—by overcoming the challenges of noise, distance, hearing loss, and technology to deliver clear and focused audio experiences in any setting or environment. Listen gives people the power to cut through the noise and enjoy precise, isolated sound in sports arenas, concert halls, churches, classrooms, meeting rooms, and more. A Listen Stationary RF system can do more than you think. While a Listen system can deliver crystal clear sound to a person with a hearing impairment, it can also be used in other ways including:

- Language Interpretation.
- Wireless audio distribution to remote rooms.
- Remote cueing.

## Classrooms



When you can hear better, you learn more. A Listen system can deliver the instructor's voice or the voice of an interpreter directly to the student's ears. The end result is improved grades and instructors who are less fatigued because they don't have to speak loudly.

## Sports Venues



Whether it's a 1,000 person high school gym or a 100,000 person baseball stadium, a Listen system can deliver sound to every seat in the facility. Sport enthusiasts, press and the athletic competitors can all enjoy the benefits of a Listen system.

## Theaters



Have you ever been experiencing a live play and asked your partner "what did she just say?" We all have some level of hearing impairment and sometimes we sit in a seat where the sound is not as clear as we would like. A Listen system delivers the voice of the actor directly to your ears.

## Places of Worship



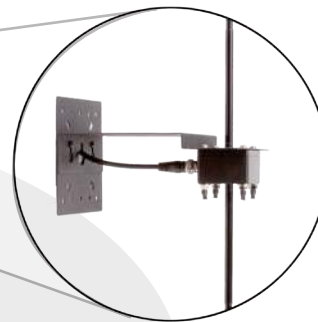
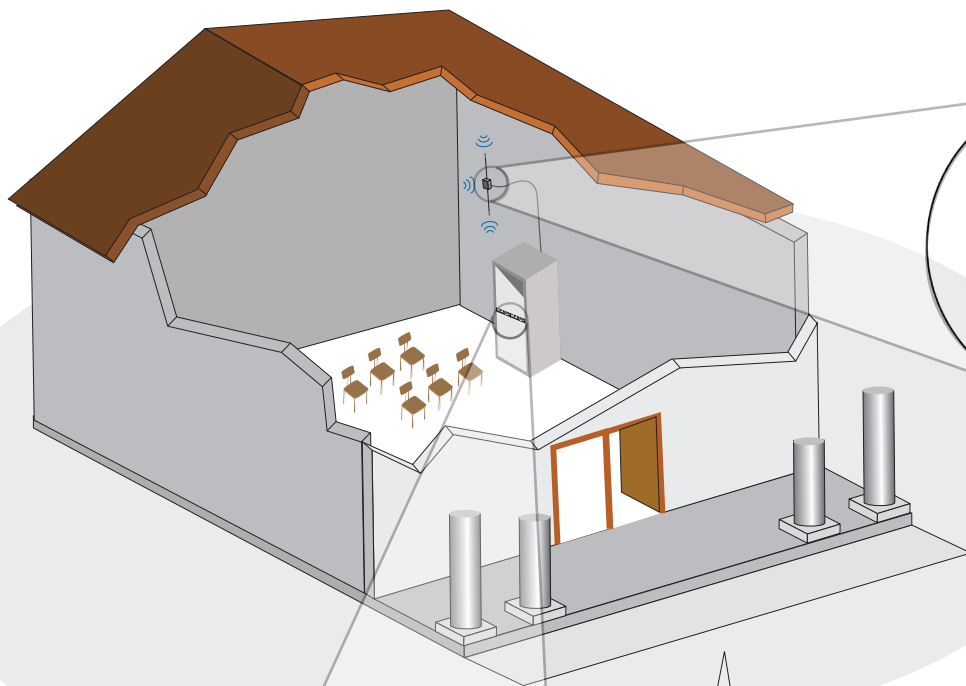
The primary message in a worship service is delivered in the form of sound. A Listen system can ensure that every individual can fully experience the service. You can use Listen products for auditory assistance and for language interpretation. You can also place a speaker/receiver in the nursery or in an overflow area.

## Highlights

- Limited lifetime warranty, exceptional world-wide service and support.
- Full range of versatile product types to meet your needs.
- Custom systems and accessories for your specific solution.
- Products are simple to use, manage and maintain and meet ADA + DDA requirements.

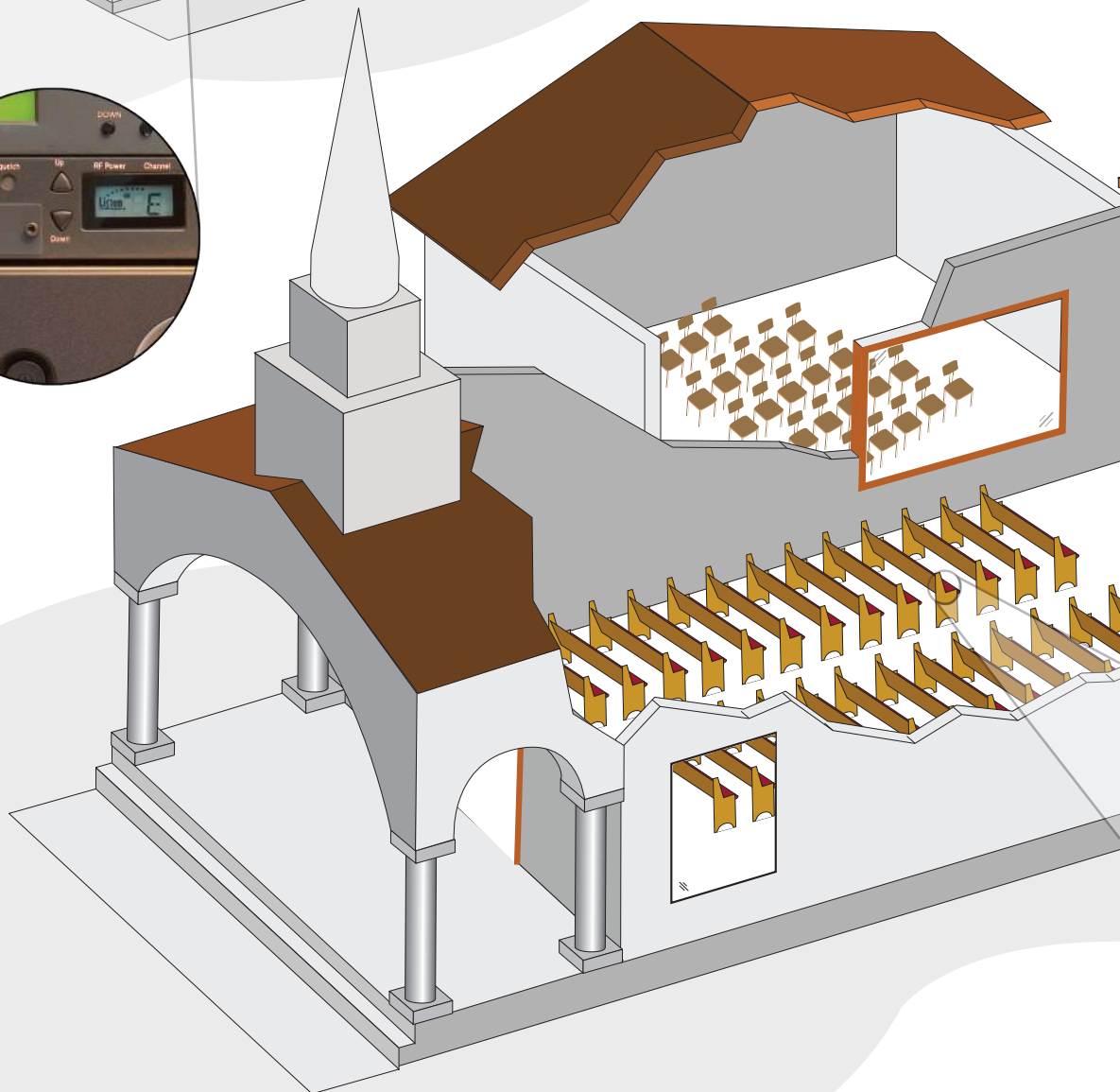
# ListenRF System

## House of Worship Applications



Remote Mounted Antenna Kits are the single solution for all of your indoor remote antenna needs.

If you can't run wires, an LR-100 Listen stationary receiver (72/216MHz only) can wirelessly receive the audio signal and deliver it to the remote room sound system.





# ListenRF System

## House of Worship Applications

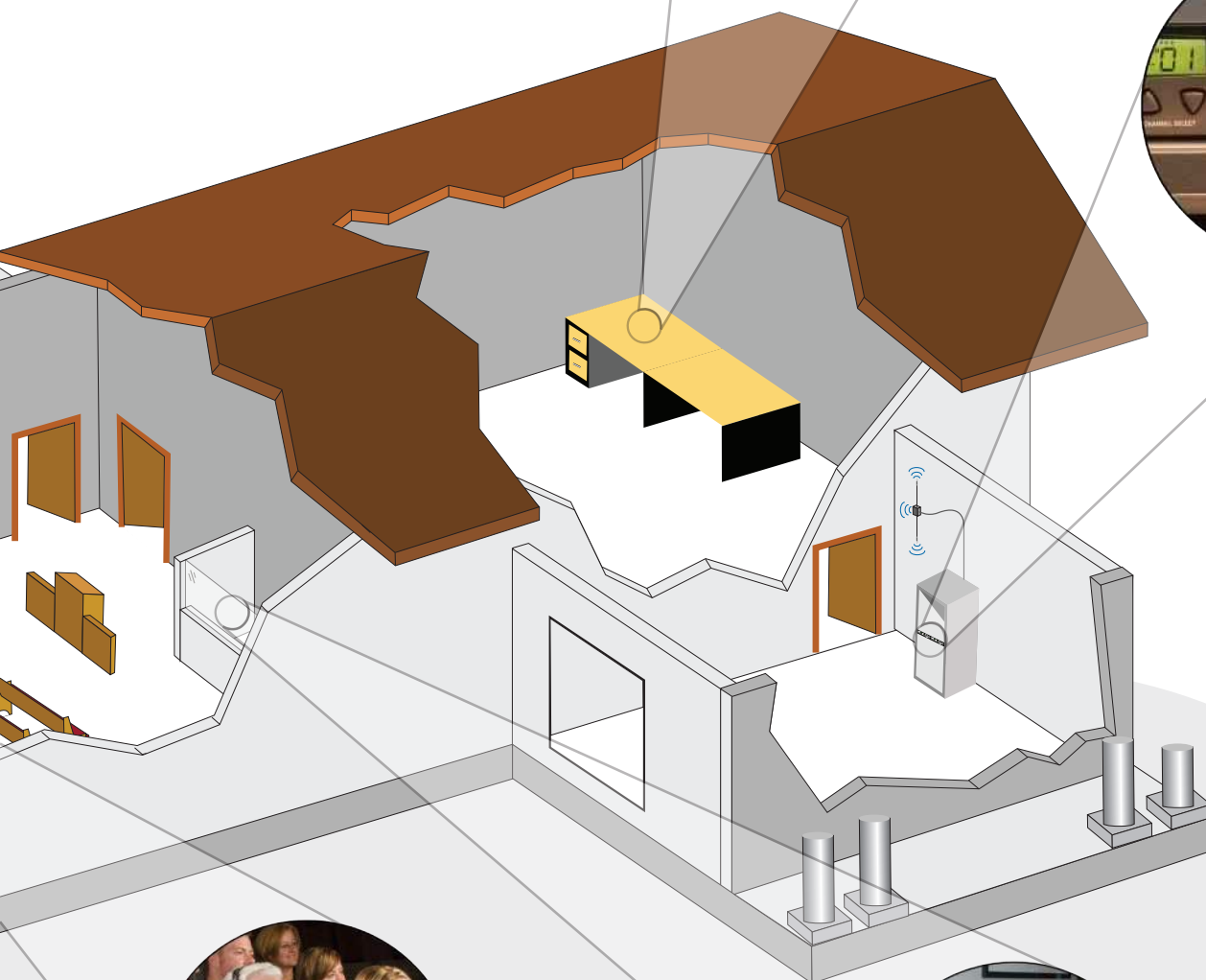
*"We have been using the Listen system for several weeks now and I have had nothing but compliments. The sound **quality** is extremely good."*

*- First Church of the Redeemer*



A Listen receiver allows the office staff to hear what's going on in the primary meeting room.

The LT-800 transmitter connects to the audio output of a mixing console or any other audio device.



Portable receivers with earphones are worn by guests. Sound from the mixing console is broadcast to the receiver.



Interpreters listen to the service in the base language and interpret the service into a different language. The interpreted language is transmitted to individuals in the room who listen on a portable receiver with an earphone.

# ListenRF Transmitters

Thanks to its outstanding audio quality, the Listen LT-800 Stationary Transmitter can be used in a variety of applications. The LT-800 can be connected to your main audio system to broadcast a high quality audio signal to belt pack receivers, stationary receivers (72/216MHz only). The end result– your audience can hear and understand the presentation better because of improved speaker placement or because they have their own belt pack and earphone. The signature Look&Listen™ LCD shows channel, lock and programming information. It has multiple audio inputs with level control and mix level control. It also includes a test tone for tuning. There are mounting options for racks and antenna.

## Highlights

- Super Quiet™ Technology provides superior audio quality.
- 57 Channels (72/216 MHz), 17 Channels (863 MHz), 32 Channels (150 MHz) – you'll always find interference-free channels.
- 80 dB Signal-to-Noise Ratio – best in class noise performance ensures guests hear the sound and not the noise.
- Long transmission range ensures coverage for the entire venue.
- Advanced audio processing (can be deactivated) ensures audio levels are consistent to users.
- Limited Lifetime Warranty with hassle-free support.



1. **Audio Section** The input level of inputs 1 and 2 are adjusted by the INPUT control and are indicated on the first two VU meters. Final transmit level is adjusted with the MIX LEVEL control. The CONTOUR control boosts or cuts audio above 5 kHz. Listen's exclusive technology delivers low noise performance. A test tone is available to aid in set up.
2. **Transmit Section** Use the UP and DOWN buttons to select the transmission channel. The LCD conveniently shows the selected channel, transmitter output power, lock and programming status.
3. **Monitor Section** You can listen to the transmitted audio using the monitor jack and volume control.
4. **RF Section** A unit mounted antenna can be directly connected to the RF OUTPUT jack or you can use a remote antenna. RF power can be selected using the switch for one-quarter, half or full power.
5. **Audio Output Section** The dual, line level phono connectors provide an output consisting of a mix of inputs 1 and 2.
6. **Audio Input Section** Connect your audio sources to inputs 1 and/or 2. Input 1 accepts a mono 3-pin XLR or phone connector with a balanced selectable mic, phantom mic or line level audio. Input 2 accepts stereo phono connectors and is unbalanced with selectable input levels of -10 and +10dBu.

## Key Specifications

- Coverage: Line of site,  
1,500 ft (457 m) 72 MHz  
3,000 ft (914 m) 216 MHz  
400 ft (122 m) 863 MHz  
2,500 ft (762 m) 150 MHz
- Number of simultaneous channels: 6/3/8/6  
72/216/863/150 MHz.
- System audio performance: 50 Hz - 15 KHz  
frequency response, >80 dB SNR and <2% THD.

## Configurations

LT-800-072 - 72 MHz  
LT-800-216 - 216 MHz  
LT-800-863 - 863 MHz  
LT-800-150 - 150 MHz

## Accessories



- The LA-326 Universal Rack Mounting Kit can rack mount one or two LT-800 Stationary RF Transmitters.

# ListenRF Antennas

## Antennas

Choosing the right antenna for your application is critical to ensuring adequate transmission coverage. There are two types of antenna – unit mounted and remote mounted. Unit mounted antennas can be mounted through an opening on top of the unit or on a rear BNC connector. You need to match the frequency range (either 72 or 216 MHz) for your application to assure the purchase of the right antenna. Use the table below to make your selection. All remote antennas include 25 ft. (7.6 m) of RG-58 coaxial cable.



LA-122



LA-130

The LA-130 Remote Antenna Kit (863 M Hz) allows the user to remotely place the LA-129 antenna for better coverage.



LA-101

The LA-101 top mounted antenna is a simple solution for limited transmission range applications.

The LA-122 Universal Antenna Kit is our most popular antenna because it can be mounted in many different configurations including dipole, monopole, wall mount, ceiling mount, and wall plate. It can be used for 72 or 216 MHz.

Part Number	Description	Type	Frequency Range	Comments
LA-122	Universal Antenna Kit	Remote	72 or 216 MHz	Most popular and adaptable antenna.
LA-101	Helical Top Mounted Antenna	Top Mounted	72 MHz	Low profile for portable applications.
LA-102	Telescoping Top Mounted Antenna	Top Mounted	216 MHz	Provides the best coverage for unit mounted.
LA-106	Telescoping Top Mounted Antenna	Top Mounted	72 MHz	Provides the best coverage for unit mounted.
LA-107	Ground Plane Remote Antenna	Remote	216 MHz	Ideal for outdoor applications.
LA-116	Coaxial Dipole Remote Antenna	Remote	72 MHz	Coaxial cable material making it easy to install above ceiling tiles, etc.
LA-117	Coaxial Dipole Remote Antenna	Remote	216 MHz	
LA-123	90 ° Helical	Unit or Remote	72 MHz	Mount on the rear of unit or on a metal plate on a wall.
LA-124	90 ° Helical	Unit or Remote	216 MHz	
LA-125	Antenna Kit for Rack Mount	Rack Mount	72 MHz	Mount a 90 degree helical to the LA-326 rack mount kit front panel.
LA-126	Antenna Kit for Rack Mount	Rack Mount	216 MHz	
LA-129	90 ° Articulating Antenna	Unit	863 MHz	
LA-130	Remote Antenna Kit	Remote	863 MHz	
LA-131	Antenna Kit for Rack Mount	Rack Mount	863 MHz	

## Coaxial Cable and Connectors

If you need to customize your installation, Listen provides a full range of RF connectors and coaxial cable available at [www.listentech.com](http://www.listentech.com)

# ListenRF Standard Receivers

Listen offers three types of portable RF receivers that allow you to customize your system to your specific needs. All three receivers offer outstanding audio performance backed by limited life time warranty. The LR-300 is Listen's value receiver and is available only in 72 MHz. Both the LR-400 and LR-500 offer an LCD display so you'll see what's going on. The LR-500 offers channel selection buttons for the user and programmability for multiple channel applications like language interpretation. In this case, you can program the LR-500 to only display active channels.

New



## iDSP 72 MHz

iDSP or Intelligent Digital Signal Processing is Listen Technologies new generation of personal listening products.

For full details visit  
[www.listentech.com/idsp](http://www.listentech.com/idsp)

### Highlights

- Super Quiet™ Technology provides superior audio quality.
- Easy to use.
- Multiple Channels – you'll always find interference-free channels.
- 80 dB Signal-to-Noise Ratio – best in class noise performance ensures guest hears the sound and not the noise.
- Look&Listen™ LCD display (LR-400/500 only) shows channel, battery status, signal strength, lock, and programming information.
- Advanced battery management.
- SEEK button automatically finds a channel.
- Limited Lifetime Warranty with hassle-free support.



## Key Specifications

- Receiver range from LT-800 Antenna: Line of site,  
1,500 ft (457 m) 72 MHz  
3,000 ft (914 m) 216 MHz  
400 ft (122 m) 863 MHz  
2,500 ft (762 m) 150 MHz
- Number of simultaneous channels: 6/3/8/6  
72/216/863/150 MHz.
- System audio performance: 50 Hz - 15 KHz  
frequency response, >80 dB SNR and <2% THD.

## Configurations

LR-300-072 – 72 MHz  
LR-400-072 – 72 MHz  
LR-400-216 – 216 MHz  
LR-400-150 – 150 MHz  
LR-400-863 – 863 MHz  
LR-500-072 – 72 MHz  
LR-500-216 – 216 MHz  
LR-500-863 – 863 MHz  
LR-500-150 – 150 MHz

## Accessories

Accessories for Listen Receivers can be found on the Receiver Accessories page 9

1. **Power/Volume** On/off and volume control.
2. **Earphone Jack** 3.5 mm jack accepts either mono or stereo headsets.
3. **Multi-function LED** Indicates power or low battery and charging status.
4. **LCD Display** Displays channel selection, battery level, signal strength, channel lock and program features (LR-500 only).
5. **Channel Section** The seek button allows you to scan for the broadcasting channel, while the up/down button allows you to manually change the receive channel. Buttons are located inside the cover on the LR-400.
6. **Charging Port/Contacts** Used with charging cases or power supply to charge NiMH batteries within the unit.
7. **Door Locks** Manually lock battery compartment door.
8. **Battery Compartment** Install alkaline or NiMH batteries to operate unit.
9. **Antenna** Articulating and flexible for easy storage (863 MHz only).



# ListenRF Standard Receivers

Listen's LR-100 Stationary Receiver / Power Amplifier is a stationary auditory assistance receiver with a built-in power amplifier. When used with a Listen transmitter, the LR-100 can deliver high quality audio for use in a variety of locations and applications – most commonly soundfields. This unit has Listen's signature Look&Listen™ LCD Display showing channel, lock, and battery level. A security cover protects auxiliary and receiver volume and trim controls. It has an adjustable squelch control, and balanced or unbalanced speaker wire output options. Multiple input options give this unit great flexibility. It's powered by a 16VAC/1000mA power input or 12 VDC battery. Add an antenna for longer range applications.

## Highlights

- Super Quiet™ Technology provides superior audio quality.
- Look&Listen™ LCD display shows channel, battery status, signal strength.
- 57-programmable channels.
- Selectable input and output options.
- Multiple input and output options.



1. **Audio Section Audio** can be adjusted for volume and quality via trim pots and switches. Listen exclusive technology delivers low noise performance.
2. **Receive Section** Use the UP and DOWN buttons to select the transmission channel. The LCD conveniently shows the selected channel, transmitter output power, lock and programming status.
3. **Monitor Section** You can listen to the transmitted audio using the monitor jack and volume control.
4. **Speaker Volume** Adjustable volume control for speaker output.
5. **Audio Output Section** Offers three different output options: unbalanced/phono, balanced male XLR and Phoenix connector for speaker.
6. **Audio Input Section** Three different audio inputs: RF signal through the antenna, unbalanced/phono or balanced/female XLR 1/4 inch combo connector.
7. **Power Connect** a power supply (included) to the back of the unit.

## Key Specifications

- Receiver range from LT-800 Antenna: Line of site, 1,500 ft (457 m) 72 MHz, 3,000 ft (914 m) 216 MHz
- Number of simultaneous channels: 6/3 72/216 MHz
- System audio performance: 63 Hz - 15 KHz frequency response, >80 dB SNR and <2% THD.
- Speaker Output: 15/10 wats (peak/RMS) with 4 Ohm load.

## Configurations

LR-100-072 - 72 MHz  
LR-100-216 - 216 MHz

**NOTE: Not available in 863 or 150 MHz.**

## Accessories



- The LA-326 Universal Rack Mounting Kit can rack mount one or two LR-100 Stationary RF Receivers.

# ListenRF Accessories

## Accessories

Listen's Stationary RF Accessories offer a wide array of options to meet your audio needs. Antennas, Mounting Kits, Connectors/Cables, Batteries/Power Supplies, Charging/Carrying Cases, Earphones/Speakers, and Microphones all provide the custom support you and your guests need so that you don't miss a single sound.

### RF Product Cases



LA-325

- LA-311 16-Unit Portable Charging/Carrying Case
- LA-313 16-Unit Portable Carrying Case
- LA-317 4-Unit Portable Charging/Carrying Case
- LA-318 4-Unit Portable Carrying Case
- LA-320 Configurable Carrying Case
- LA-321 8-Unit Portable Charging/Carrying Case
- LA-322 8-Unit Portable Carrying Case
- LA-323 4-Unit Portable Charging/Carrying Case w/Removable Lid
- LA-324 8-Unit Portable Charging/Carrying Case w/Removable Lid
- LA-325 16-Unit Portable Charging/Carrying Case w/Removable Lid

### Earphones



LA-170

- LA-161 Single Ear Bud
- LA-162 Stereo Ear Buds
- LA-164 Earspeaker
- LA-165 Stereo Headphones
- LA-166 Neck Loop
- LA-170 Behind-the-Head Stereo Headphones

### Antennas



LA-124

- LA-101 Helical Top Mounted Antenna
- LA-102 or LA-106 Telescoping Top Mounted Antenna
- LA-107 Ground Plane
- LA-116 or LA-117 Coaxial Dipole Remote Antenna
- LA-122 Universal Antenna Kit
- LA-123 or LA-124 90° Helical Antenna
- \* LA-129 90° Articulating Antenna (863 MHz)
- LA-130 Remote Antenna Kit (863 MHz)
- LA-131 Antenna Kit for Rack Mount (863 MHz)

## Stationary RF Systems

Listen's Stationary RF Systems offer a simple foundation for building a custom system that delivers all your audio needs. Each Stationary RF system can be used for assisted listening, in-ear cueing, and press feeds, while helping public venues to meet government guidelines such as Americans with Disabilities Act (ADA) and International Building Code (IBC).



LS-ADA

Product Description	System Part Number						
	LS-01	LS-02	LS-03	LS-04	LS-ADA	LS-16	LS-17
LT-800 Stationary Transmitter	1	1	1	1		1	
LT-803 3-Channel RF Transmitter					1		1
LA-326 Universal Rack Mounting Kit			1	1		1	1
LA-106 Top Mounted Telescoping Antenna	1	1					
LA-122 Universal Antenna Kit			1	1		1	
LA-123 90° Helical Antenna					1		
LR-200 Standard 3-Channel RF Receiver					2		4
LR-300 Body Pack Digital RF Receiver	3	4					
LR-400 Body Pack Display RF Receiver			4			4	
LR-500 Programmable Display FM Receiver				4			
LA-361 High Capacity AA Alkaline Batteries (2)			4		2	4	4
LA-362 Rechargeable AA NiMH Batteries (2)				4			
LA-161 Single Ear Bud	3	4			2		
LA-164 Ear Speaker			4	4		4	4
LA-166 Neck Loop					2	2	2
LA-317 4-Unit RF Products Charging/Carrying Case				1			
LA-304 Assistive Listening Signage Kit	1	1	1	1	1	1	1

### Example:

System Designator  
Listen System — **LS-03-216**  
Frequency

Each Stationary RF System delivers Listen's commitment to providing you with a customizable solution that is simple to specify, install, and use. You will enjoy outstanding performance with exceptional support from the Listen team.

**Don't miss a single sound. Listen.**

## Frequency Chart

72 MHz Range				216 MHz Range				863 MHz Range		150 MHz Range	
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	72.025	20	72.975	1A	216.0125	2K	216.5250	01	863.050	01	150.900
2	72.075	33	74.625	2A	216.0250	3K	216.5375	02	863.200	02	152.400
A	72.100	34	74.675	3A	216.0375	1L	216.5625	03	863.400	03	151.500
3	72.125	I	74.700	1B	216.0625	2L	216.5750	04	863.550	04	152.100
4	72.175	35	74.725	2B	216.0750	3L	216.5875	05	863.750	05	151.200
K	72.200	36	74.775	3B	216.0875	1M	216.6125	06	863.900	06	151.800
5	72.225	37	75.225	1C	216.1125	2M	216.6250	07	864.100	07	150.850
6	72.275	38	75.275	2C	216.1250	3M	216.6375	08	864.250	08	150.950
B	72.300	J	75.300	3C	216.1375	1N	216.6625	09	864.450	09	151.00
7	72.325	39	75.325	1D	216.1625	2N	216.6750	10	864.600	10	151.000
8	72.375	40	75.375	2D	216.1750	3N	216.6875	11	864.800	11	151.050
N	72.400	R	75.400	3D	216.1875	1P	216.7125	12	864.950	12	151.100
9	72.425	21	75.425	1E	216.2125	2P	216.7250	13	863.300	13	151.150
10	72.475	22	75.475	2E	216.2250	3P	216.7375	14	863.650	14	151.250
C	72.500	F	75.500	3E	216.2375	1R	216.7625	15	864.000	15	151.300
11	72.525	23	75.525	1F	216.2625	2R	216.7750	16	864.350	16	151.350
12	72.575	24	75.575	2F	216.2750	3R	216.7875	17	864.700	17	151.400
O	72.600	S	75.600	3F	216.2875	1S	216.8125			18	151.450
13	72.625	25	75.625	1G	216.3125	2S	216.8250			19	151.600
14	72.675	26	75.675	2G	216.3250	3S	216.8375			20	151.650
D	72.700	G	75.700	3G	216.3375	1T	216.8625			21	151.700
15	72.725	27	75.725	1H	216.3625	2T	216.8750			22	151.750
16	72.775	28	75.775	2H	216.3750	3T	216.8875			23	151.850
P	72.800	T	75.800	3H	216.3875	1U	216.9125			24	151.900
17	72.825	29	75.825	1J	216.4125	2U	216.9250			25	151.950
18	72.875	30	75.875	2J	216.4250	3U	216.9375			26	152.00
E	72.900	H	75.900	3J	216.4375	1V	216.9625			27	152.050
19	72.925	31	75.925	1K	216.5125	2V	216.9750			28	152.150
		32	75.975			3V	216.9875			29	152.200
The highlighted rows are wide band channels.										30	152.250
										31	152.300
										32	152.350

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