

# Stationary FM *Product Type Brochure*

SOUNDFIELD FM  
PORTABLE FM  
STATIONARY FM  
STATIONARY IR  
WIRELESS AUDIO DISTRIBUTION  
DISCUSSION  
DIGITAL CONFERENCING  
DIGITAL IR

*Don't miss a single sound.*

**Listen<sup>®</sup>**  
[www.listentech.com](http://www.listentech.com)

ASSISTIVE LISTENING • CONFERENCING • TOUR GROUP • SOUNDFIELD • LANGUAGE INTERPRETATION



# Personalize. Simplify. Customize.

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 FM 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 FM 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!

# Don't miss a single sound. Listen.

A Listen Stationary FM 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 speaker/receiver in nurseries, locker rooms, offices.
- 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.

## 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



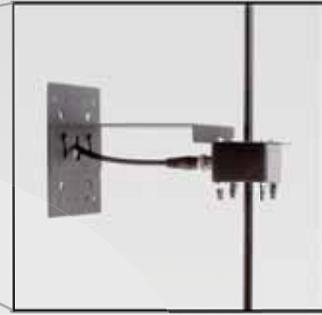
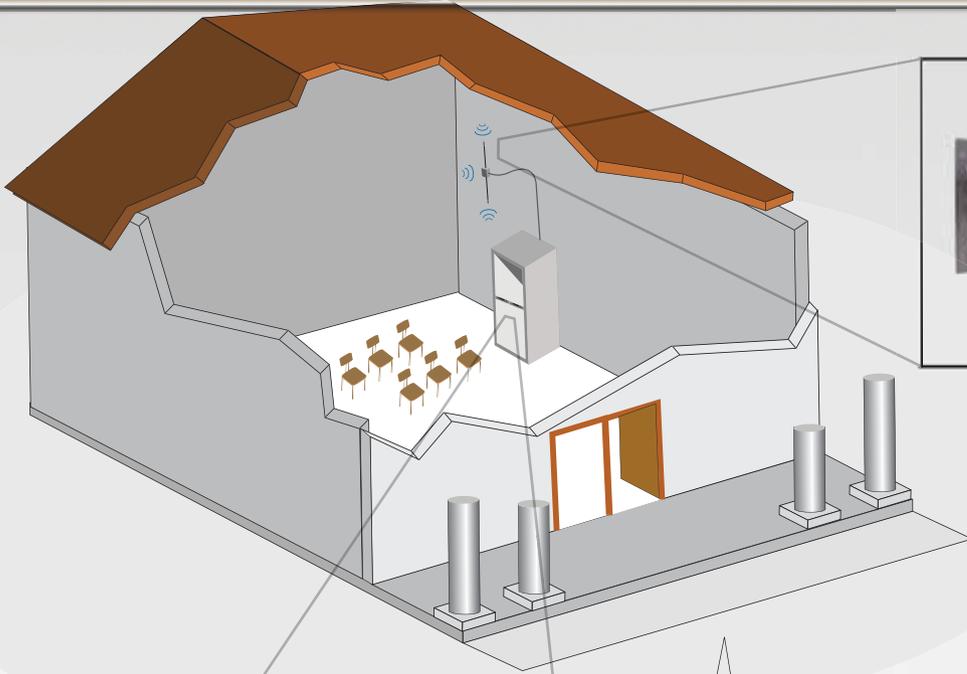
The primary message in a worship service is delivered in the form of sound. A Listen system can ensure that every individual can fully experience the service. You can use Listen products for auditory assistance and for language interpretation. You can also place a speaker/receiver in the nursery or in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

## 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.

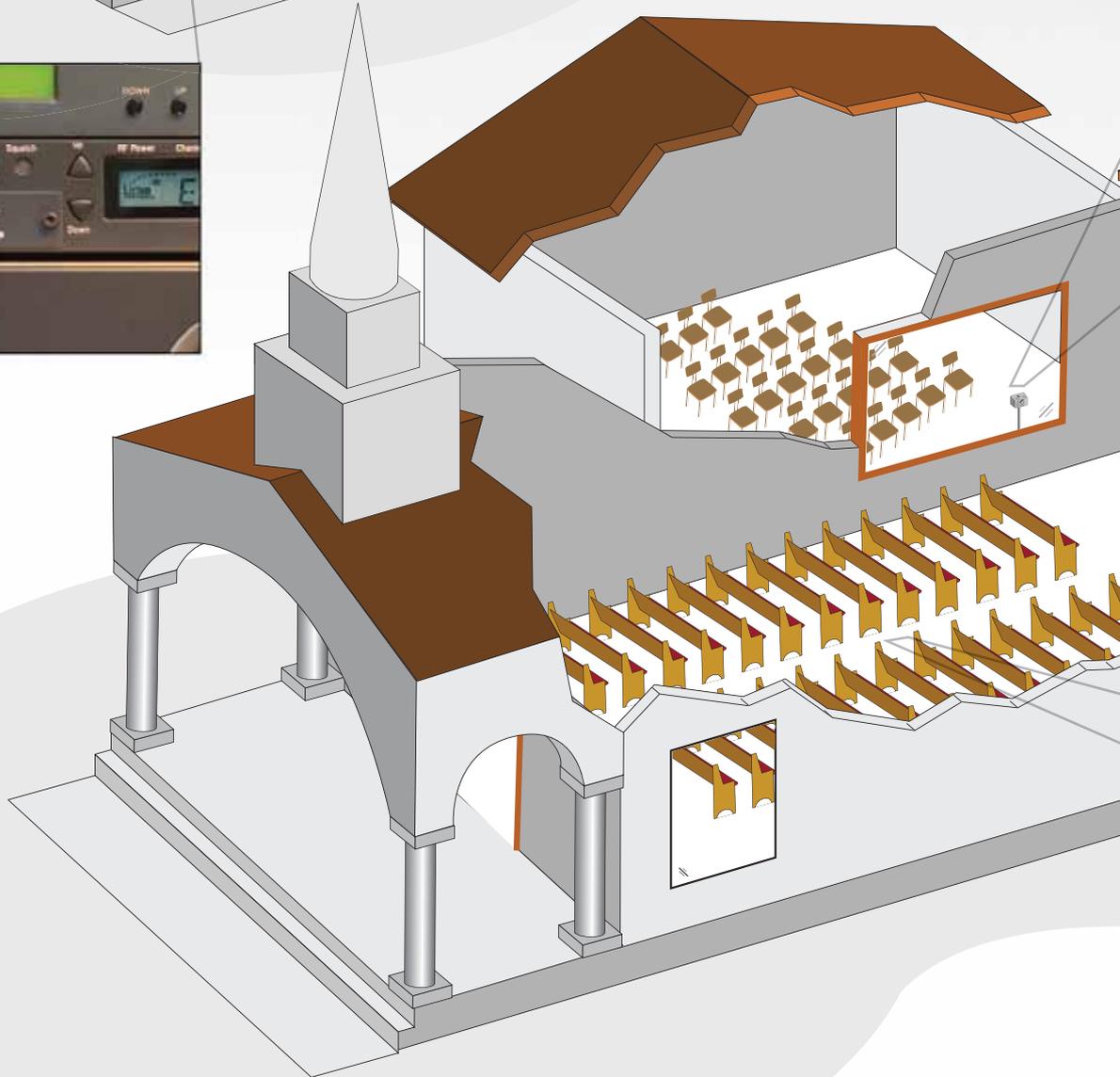


# Listen Stationary FM System



Remote Mounted Antenna Kits are the single solution for all of your indoor remote antenna needs.  
(LA-122 72/216 MHz)  
(LA-130 863 MHz)

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.





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



Staffing the nursery or overflow area doesn't mean missing the service. A Listen LR-600 speaker/receiver (72/216MHz only) allows the service to be heard almost anywhere.

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.

# LT-800 Stationary FM Transmitter

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, or wireless speaker/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

- Superior Audio Quality – 80 dB (70 dB with 863 MHz) signal-to-noise ratio, setting the industry's sound quality standard.
- 57 Channels (72/216MHz), 17 Channels (863MHz) – you'll always find interference-free channels.
- 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 phono 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) / 3,000 ft (914 m) / 400 ft (122 m), 72/216/863MHz.
- Number of simultaneous channels: 6/3/8 72/216/863MHz.
- System audio performance: 50Hz - 15KHz frequency response, >80dB SNR and <2% THD.

## Configurations

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

## Accessories

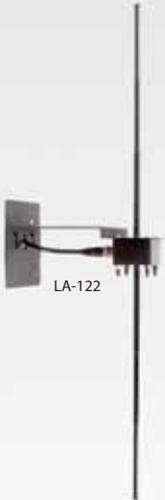


- The LA-326 Universal Rack Mounting Kit can rack mount one or two LT-800 Stationary FM Transmitters (includes security cover).

# LT-800 Stationary FM 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 216MHz) 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.



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 216MHz.



A solution for your remote antenna needs for the LT-800 (863 MHz). The kit contains monopole and dipole antenna options; and hardware to mount on a wall, electrical box, and horizontal surface (flat and inverse), inside a wall or ceiling. Includes 25 ft. (7.6 m) of RG-58 coaxial cable.



The LA-123 90° Helical antenna is a simple solution for limited transmission range applications.

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

## 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)

# FM Receivers

Listen offers three types of portable FM 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.

## Highlights

- Superior Audio Quality – 80 dB (70 dB with 863 MHz) signal-to-noise ratio, setting the industry's sound quality standard.
- Easy to use.
- Multiple Channels – you'll always find interference-free channels.
- 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) / 3,000 ft (914 m), 400 ft (122 m), 72/216/863 MHz.
- Number of simultaneous channels: 6/3/8 72/216/863 MHz.
- System audio performance: 50-15KHz 72/863 MHz 50-10 KHz 216 MHz frequency response, >80dB SNR and <2% THD.

## Configurations

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

## Accessories

Accessories for Listen Receivers can be found on the Receiver Accessories page 10

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 (LR-400 and LR-500 only)** Displays channel section, battery level, signal strength, channel lock and program features (LR-500 only).
5. **Channel Section** The seek button allows you to scan for broadcasting channel, while the up/down button (LR-400 and LR-500 only) allow you to manually change received 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 (863MHz only).

Amplification anywhere without wires! All-in-one wireless receiver, 2-channel 10 Watt power amplifier (15 Watt Peak, 10 Watt RMS). Place up to 3,000 feet away (at 216 MHz) from the stationary transmitter and 150 feet away from a Listen portable transmitter to receive and amplify the transmission audio. Perfect for Soundfield applications! This unit is powered by AA batteries (alkaline or NiMH rechargeables), or 15VAC power supply or 12 VDC, for 15/10 Watt continuous power. It has unbalanced auxiliary input and output ports. Listen's signature Look&Listen™ LCD display shows channel, lock, and battery level. Comes with adjustable mounting bracket.

## Highlights

- Super Quiet™ Technology provides superior audio quality.
- Easy to use.
- Multiple Channels – you'll always find interference-free channels.
- 80dB Signal-to-Noise Ratio – best in class noise performance ensures guests hear the sound and not the noise.
- Look&Listen™ LCD display shows channel, battery status, signal strength, lock, and programming information.
- SEEK button automatically finds a channel.
- Limited Lifetime Warranty with hassle-free support.
- Unbalanced aux input and output.
- Adjustable 3-band equalizer.



1. **Channel Selector/Volume** Change channel from the top or rear. Adjust volume from the top.
2. **Charging/Power Port** Power unit and/or charge NiMH batteries.
3. **Adjustable 3-Band Equalizer** Fine-tune audio output.
4. **Input/Output Ports** Unbalanced/auxiliary phono/input/output ports.
5. **LCD Display** Displays channel selection, battery level, signal strength, channel lock and program features.
6. **Antenna** Use either the internal or optional external antenna.
7. **Battery Compartment** Unit can be powered by (8) alkaline batteries or NiMH rechargeable batteries.
8. **Adjustable Handle/Mounting Bracket** For mounting on wall, ceiling or microphone stand.
9. **Speaker** 15/10 watt (peak/RMS) 4 ohm 2-way speaker.

## Key Specifications

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

## Configurations

LR-600-072 – 72 MHz  
 LR-600-216 – 216 MHz  
**NOTE: Not available in 863MHz.**

## Accessories

Accessories for Listen Receivers can be found on the Receiver Accessories page 10.

# FM 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.
- 57-programmable channels.
- Adjustable squelch control.
- Selectable audio output.
- 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) / 3,000 ft (914 m), 72/216MHz.
- Number of simultaneous channels: 6/3, 72/216MHz.
- System audio performance: 63 Hz - 15KHz frequency response, >80dB SNR and <2% THD.
- Speaker Output: 15/10 wats (peak/RMS) with 4 ohm load.

## Configurations

LR-100-072 - 72MHz

LR-100-216 - 216MHz

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

## Accessories



- The LA-326 Universal Rack Mounting Kit can rack mount one or two LR-100 Stationary FM Receivers (includes security cover).

# Receiver Accessories and Stationary FM Systems

## Accessories

Listen's Stationary FM 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.

### FM Product Cases



LA-321

- 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 Degree Helical Antenna
- LA-130 Remote Antenna Kit (863 MHz)
- LA-131 Antenna Kit for Rack Mount (863 MHz)

## Stationary FM Systems

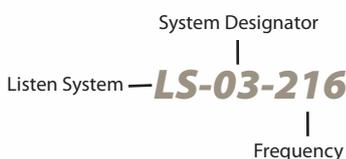
Listen's Stationary FM Systems offer a simple foundation for building a custom system that delivers all your audio needs. Each Stationary FM system can be used for assisted listening, in-ear cueing, and press feeds, while helping public venues to meet government guidelines such as Americans with Disabilities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



LS-04

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

### Example:



Each Stationary FM 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

72MHz Range:				216MHz Range				863MHz Range	
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
2	72.075	33	74.625	2A	216.0250	3K	216.5375	02	863.200
A	72.100	34	74.675	3A	216.0375	1L	216.5625	03	863.400
3	72.125	I	74.700	1B	216.0625	2L	216.5750	04	863.550
4	72.175	35	74.725	2B	216.0750	3L	216.5875	05	863.750
K	72.200	36	74.775	3B	216.0875	1M	216.6125	06	863.900
5	72.225	37	75.225	1C	216.1125	2M	216.6250	07	864.100
6	72.275	38	75.275	2C	216.1250	3M	216.6375	08	864.250
B	72.300	J	75.300	3C	216.1375	1N	216.6625	09	864.450
7	72.325	39	75.325	1D	216.1625	2N	216.6750	10	864.600
8	72.375	40	75.375	2D	216.1750	3N	216.6875	11	864.800
N	72.400	R	75.400	3D	216.1875	1P	216.7125	12	864.950
9	72.425	21	75.425	1E	216.2125	2P	216.7250	13	863.300
10	72.475	22	75.475	2E	216.2250	3P	216.7375	14	863.650
C	72.500	F	75.500	3E	216.2375	1R	216.7625	15	864.000
11	72.525	23	75.525	1F	216.2625	2R	216.7750	16	864.350
12	72.575	24	75.575	2F	216.2750	3R	216.7875	17	864.700
O	72.600	S	75.600	3F	216.2875	1S	216.8125		
13	72.625	25	75.625	1G	216.3125	2S	216.8250		
14	72.675	26	75.675	2G	216.3250	3S	216.8375		
D	72.700	G	75.700	3G	216.3375	1T	216.8625		
15	72.725	27	75.725	1H	216.3625	2T	216.8750		
16	72.775	28	75.775	2H	216.3750	3T	216.8875		
P	72.800	T	75.800	3H	216.3875	1U	216.9125		
17	72.825	29	75.825	1J	216.4125	2U	216.9250		
18	72.875	30	75.875	2J	216.4250	3U	216.9375		
E	72.900	H	75.900	3J	216.4375	1V	216.9625		
19	72.925	31	75.925	1K	216.5125	2V	216.9750		
		32	75.975			3V	216.9875		

The highlighted rows are wide band channels.



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Printed in the United States of America

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