# LR-100 Stationary Receiver / Power Amplifier



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. The built-in 15 watt power amplifier (15 peak, 10 RMS) can be used to either amplify the receiver audio, or it can be used independently.

# Benefits

- Use with Listen<sup>®</sup> transmitters for auditory assistance and ADA compliance.
- Transmit high quality audio without wires up to 3,000 feet (914.4m).
- Easy to install and operate.
- Outstanding audio performance: 80 dB SNR, 50 to 15 KHz bandwidth (10 KHz at 216 MHz).
- Built-in 15/10 Watts (peak/RMS) continuous power with 4 Ohm load.
- Power amplifier selection switch allows power amp to be used separate of the receiver.
- Balanced and unbalanced audio outputs, adjustable output level, and VU meter.
- Auxiliary input mixes with or interrupts (when squelched) receiver output audio. Input level is adjustable.
- Comes with helical antenna (LA-123 for 72 MHz or LA-124 for 216 MHz). The LA-122 Universal Antenna Kit is an optional accessory that provides rock solid reception and enhanced performance.
- Operates on external 12 VDC battery or external power supply. Truly wireless!
- LCD display shows channel and signal strength.
- 57 channels. You'll never have to worry about finding a clear channel.
- Available in 72 MHz or 216 MHz frequency bands.
- Adjustable squelch mutes audio when RF signal is not present.
- Programmable so you can limit the number of channels that users have to choose from.
- Channel selection can be remoted. Use an external switch to select channels and mute output audio. AMX or Creston compatible.
- Front panel electronically locks to prevent tampering.
- Mount your LR-100 anywhere! Rack and bracket mountable (order optional LA-326 Mounting Kit and for LA-327 "L" Bracket Mounting Kit).
- Compatible with all existing ALS and auditory assistance system manufacturers.

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LR-100 shown with security cover and antenna in place

# **User Applications**

- sports bars
- large overflow areas
- outdoor festivals
- gyms
- boardrooms
- outdoor pavilions
- street malls
- restaurants
- sports bars
- schools
- houses of worship
- cafeteria areas
- meeting rooms
- convention centers
- training facilities
- indoor or outdoor tour areas
- cruise ships
- trade shows
- amphitheaters
- pavilions
- parks
- zoos
- and many more!

### Listen Technologies Corporation

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# <image>

# LR-100 Features

- 1. Adjustable Squelch and LED indicator for signal capture control (Squelch trim pot behind security cover).
- 2. UP/DOWN channel selection of 57 channels.
- 3. Look&Listen<sup>™</sup> LCD Display shows channel selection and channel lock status. Also used to program channel selection (see Feature #2) so that only the channels you are using are displayed (see back cover).
- 4. SEEK button to easily find the transmission. The LR-100 can also electronically lock on channel to prevent accidental channel switching.
- 5. Adjustable volume control for speaker output.
- 6. Receiver volume trim pot control behind security cover.
- 7. Auxiliary audio input volume trim pot control behind security cover.
- 8. When enabled, SQ<sup>™</sup> technology provides highest audio quality available in its product category. SQ can be disabled for compatibility with other assistive listening equipment.
- 9. Earphone jack to check audio signal integrity.
- 10. Use 90 Degree Helical Antenna (included) or substitute remote antenna (see LR-100 Accessories) for longer range applications.
- 11. Operates on either supplied 16VAC/1000mA power input (LA-201), or optional 12VDC battery. Trickle charge circuitry for 12VDC battery.
- 12. External switch controller can connect to terminal block to change channels and/or mute audio.
- 13. Selectable audio output. Select ALS received audio, received and auxiliary audio input, or "receiver or auxiliary" where auxiliary plays until an ALS signal is received, which overrides the auxiliary input.
- 14. Three different output options: Unbalanced/phono, balanced/Male XLR, or speaker wire.
- 15. Three different input options: ALS receiver (72 or 216MHz, depending on model), unbalanced/phono connector, or balanced/Female-XLR ¼ inch combo connector.

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# LR-100 Accessories



### LT-800 Rack Mount Options Other Stationary Unit Antennas LA-327 "L" Bracket LA-326 Rack Mounting Kit Antenna Kit for the Mount Kit -326 Rack Mount Kit Includes components for single and dual LA-125 for 72MHz or LA-126 for 216MHz rack configuration and a security cover Use to mount on any flat surface Expansion Speaker LA-122 Universal Antenna Kit The single solution for all of your indoor remote antenna needs. Includes: 72 and 216MHz Ground 216MHz components; Plane flexible and rigid (Remote Mount) dipoles and monopole LA-107 for 216MHz radials; hardware for Designed for outdoor LA-316 Expansion Speaker multiple mounting installation configurations. 10 watt, 2 channel speaker

# Architectural Specifications

The FM stationary receiver / power amplifier (receiver) shall be capable of receiving on 57 wide and narrow band channels in the frequency ranges of either 72MHz or 216MHz. The receiver shall be programmable to electronically lock out unneeded channels. The device shall have an adjustable squelch with an LED indication. The frequency response of the device shall be within 3dB from 63Hz to 15KHz at 72MHz, or within 3dB from 63Hz to 10kHz at 216MHz. The signal to noise ratio shall be 80dB or greater. The device will have an integrated power amplifier capable of driving a 4 Ohm speaker. The device shall be rack mountable and shall have the capability of a remote antenna. The device shall incorporate an LCD display that indicates channel and RF signal strength. The Listen LR-100 is specified.

# Warranty

Listen Technologies Corporation (Listen<sup>®</sup>) warrants its receiver (LR-100) to be free from defects in workmanship and material under normal use and conditions for the useful lifetime of the product from date of purchase. This warranty is only available to the original end purchaser of the product and cannot be transferred. Warranty is only valid if warranty card has been returned within 90 days of purchase. This warranty is void if damage occurred because of misuse or if the product has been repaired or modified by anyone other than a factory authorized service technician. Warranty does not cover normal wear and tear on the product or any other physical damage unless the damage was the result of a manufacturing defect. Listen is not liable for consequential damages due to any failure of equipment to perform as intended. Listen shall bear no responsibility or obligation with respect to the manner of use of such equipment including, without limitation, any warranty that the use of such equipment for any purpose will comply with applicable laws and regulations. The terms of the warranty are governed by the laws of the state of Utah, USA. Listen will only accept returned products with prepaid shipping and with a return authorization number. To receive a return authorization number call 1.800.330.0891 or +1.801.233.8992. Please see www.ListenTech.com or contact Listen for complete warranty details.

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# LR-100 Stationary Receiver / Power Amplifier

### www.ListenTech.com

Listen

	Specification	LR-100-072	LR-100-216
	RF Frequency Range	72.025 - 75.975 MHz	216.025 - 216.987 MHz
	Number of Channels	57 (17 wide, 40 narrow)	57 (19 wide, 38 narrow)
	Sensitivity	.6uV typical, 1 uV maxi	mum for 12dB SINAD
	Frequency Accuracy	± .005% stability 0° to 50°C (32° to 122° F)	
RF	Antonen	Flexible helical,	Flexible helical,
	Antenna	9.0 in (23 cm) included	5.5 in (14 cm) included
	Optional Antennas	Several available. See www.ListenTech.com for details	
	Antenna Connector	BNC	
	Squelch	Continuously adjustable via front panel trim pot	
	Compliance	FCC Part 15, Industry Canada	
	** All	system specifications are wireless end-to	o-end
Audio	System Frequency Response	63Hz - 15kHz (±3dB)	63Hz - 10kHz (±3dB)
	System Signal-to-Noise Ratio		SQ enabled: 80dB; SQ disabled
	(A-weighted)	SQ enabled: 80dB; SQ disabled 60dB	50dB
	System Distortion	<2% total harmonic distortion	
	Auxiliary Input to Output		
	Auxiliary input to Output	Frequency Response: 25Hz to 20kHz (±3dB), SNR: >80dB, Distortion: <0.2 Rear panel. One Female XLR-1/4 in combo connector, balanced, 0dBu	
	Balanced Auxiliary Input	nominal input level adjustable, +13dBu maximum, impedance 600 Ohm	
		Rear panel. Two Phono connectors, unbalanced, -10dBu nominal input	
	Unbalanced Auxiliary Input	level adjustable, +7dBu maximum, impedance 10k Ohms	
		Rear panel. One Male XLR, balanced, 0dBu nominal output level, +16dBi	
	Balanced Output	maximum, impedance 2k/10 Ohms (line/mic)	
		Rear panel. Two Phono connectors, unbalanced, -10dBu nominal output	
	Unbalanced Output	level, +2dBu maximum, impedance 2k Ohms	
		Front panel. One 3.5mm stereo connector, unbalanced, adjustable outp	
	Headphone Output	level, +16dBu maximum, impedance 32 Ohms, 120mW.	
		Rear panel, One detachable terminal block, bridged, adjustable output	
	Speaker Output	level, 15/10 watts (peak/RMS) continuous power with 4 Ohm load	
	Sat up Captrola		
Controls	Set-up Controls, Front Panel behind Security Cover	Receive level, auxiliary input level, SQ on/off, squelch	
	FIONI Parlet behind Security Cover	Audio output select (RX Only, RX + AUX, RX or AUX),	
	Set-up Controls, Back Panel	Speaker (Output, Aux), switchable balanced output level	
	User Controls	Volume, channel UP/DOWN, SEEK (all controls except volume are lockable	
	Remote Controls	Eight position detachable terminal block, channel up, channel down, mut	
		Unit can be programmed so that only desired channels are displayed to the user, chaannel selection can be locked by holding the SEEK button 5 seconds.	
	Programming		
	Flogrammig		
Indicators	VU Meter	Four LED (three green, one red)	
	Power	Green LED illuminates when the unit is powered up	
	LCD Display	Channel, RF signal strength, lock status, programming	
	Squelch	Green LED illuminates when the unit is squelched	
	Mute	Green LED illuminates when the output audio is muted	
Power	Power Supply Type	In-line power supply, Listen part number LA-201	
	Power Supply Input	120VAC, 60 Hz, 19 watts (maximum continuous)	
	Power Supply Output	15VAC, 1A	
	Power Supply Connector	.02 in OD x .01 in ID (5.0mm x 2.5mm), barrel type	
	Compliance	UL Listed	
	Optional Battery	12VDC, connected via terminal block	
	Optional Battery Charging	Trickle charge of optional 12VDC battery through terminal block	
Physical			
	Dimensions	8.0 in x 8.0 in x 1.75 in WxDxH (20.3cm x 20.3cm x 4.45cm)	
	Unit Weight	2.8 lbs (1.3kg)	
	Unit Weight w/LA-201 Power Supply	4.2 lbs (1.9kg)	
	Shipping Weight	5.6 lbs (2.5kg)	
	Rack Mounting	1/2 rack unit (RU), optional rack mount not include,	
		order Listen part number LA-326	
	Temperature - Operation	-10° to +40°C (14° to 104° F)	
Environmental	×	-20° to +50° (-4° to 122° F)	
	Humidity	0-95% relative humidity, non-condensing	

Photographs, CAD drawings, etc. available at www.ListenTech.com.

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