

## LR-100 Stationary Receiver / Power Amplifier

Models: LR-100-072 (72MHz)  
LR-100-216 (216MHz)



Specify Part  
Number

LR-100-072  
for 72MHz

LR-100-216  
for 216MHz

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 44 watt power amplifier can be used to either amplify the receiver audio, or it can be used independently. The LR-100 also has Listen's standard 57 channels, 100% digital tuning, and can be rack mounted. Comes with a rear mounted, 90 Degree Helical Antenna (LA-123 or LA-124).



LR-100 show with security cover removed

### Key Features

- Use with Listen transmitters for auditory assistance and ADA compliance.
- Transmit high quality audio without wires up to 3,000 feet.
- Easy to install and operate.
- Includes the latest SQ™ Technology, providing outstanding audio performance: 80 dB SNR, 50 to 15 KHz bandwidth (10 KHz at 216 MHz)\*.
- Built-in 44 watt power amplifier (31 watt RMS).
- 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 with LED squelch indicator.
- 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.



\* ListenSQ™ must be enabled end-to-end on the system

**Wireless  
Audio**

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For copies, refer to #  
**LL-111**

# LR-100 Stationary Receiver / Power Amplifier

## Use With

LT-800-072 Stationary Transmitter  
LT-800-216 Stationary Transmitter  
LT-700-072 Portable Transmitter  
LT-700-216 Portable Transmitter

## Accessories

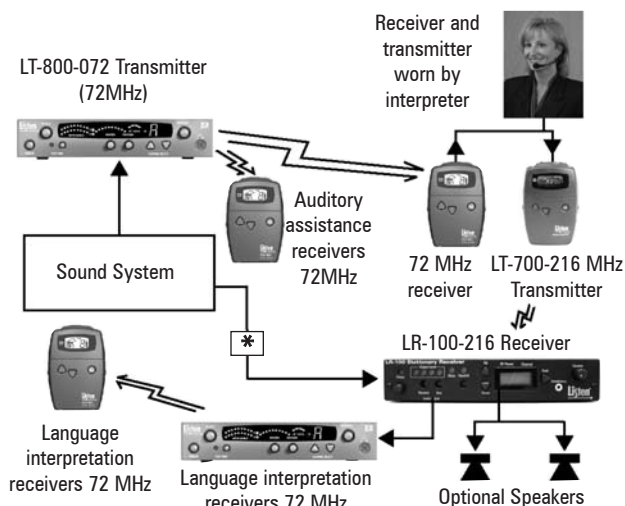
LA-326 Rack Mount Kit	LA-112 RG58 Coaxial Cable
LA-327 "L" Bracket Mounting Kit	LA-113 RG8 Low Loss Coaxial Cable
LA-123 90 Degree Helical Antenna (72MHz) (one included)	LA-114 Coaxial Connector
LA-124 90 Degree Helical Antenna (216MHz) (one included)	Installation (2 connectors)
LA-122 Universal Antenna Kit	LA-121 BNC Adapter
LA-129 RG58 BNC Cable Connector	LA-316 Expansion Speaker

## Locations for Use

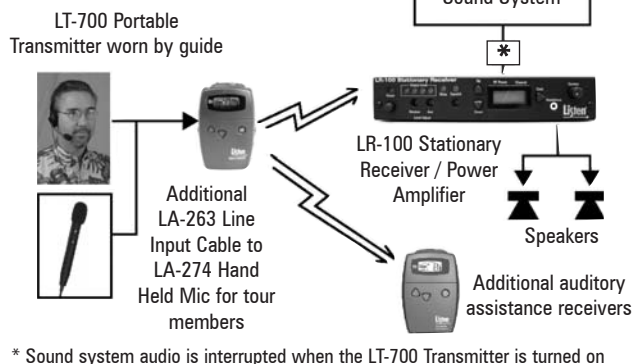
Convention Centers	Theatres
Hotels	Auditoriums
Universities and Schools	Gymnasiums
Government	Stadiums
Parades	Arenas
Outdoor events	Fitness Centers

Factories  
Large Facilities  
Live Events  
Rentals  
Museums  
Zoos

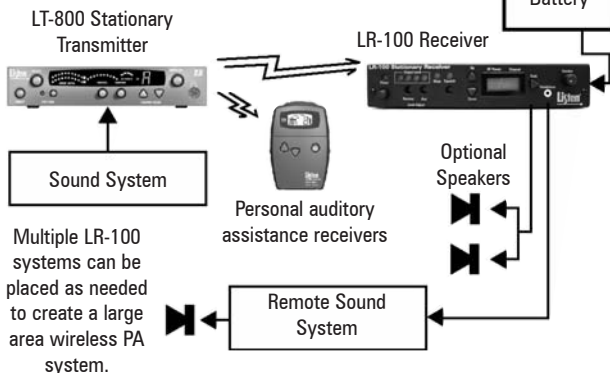
### Language Interpretation and Auditory Assistance



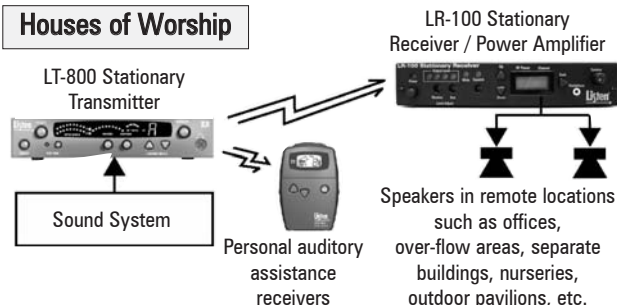
### Tour Group / Portable PA System



### Distributed Sound System: Parades, Sporting Events, etc.



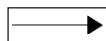
### Houses of Worship



More application diagrams are found on page 4.



Indicates wireless transmitted signal.

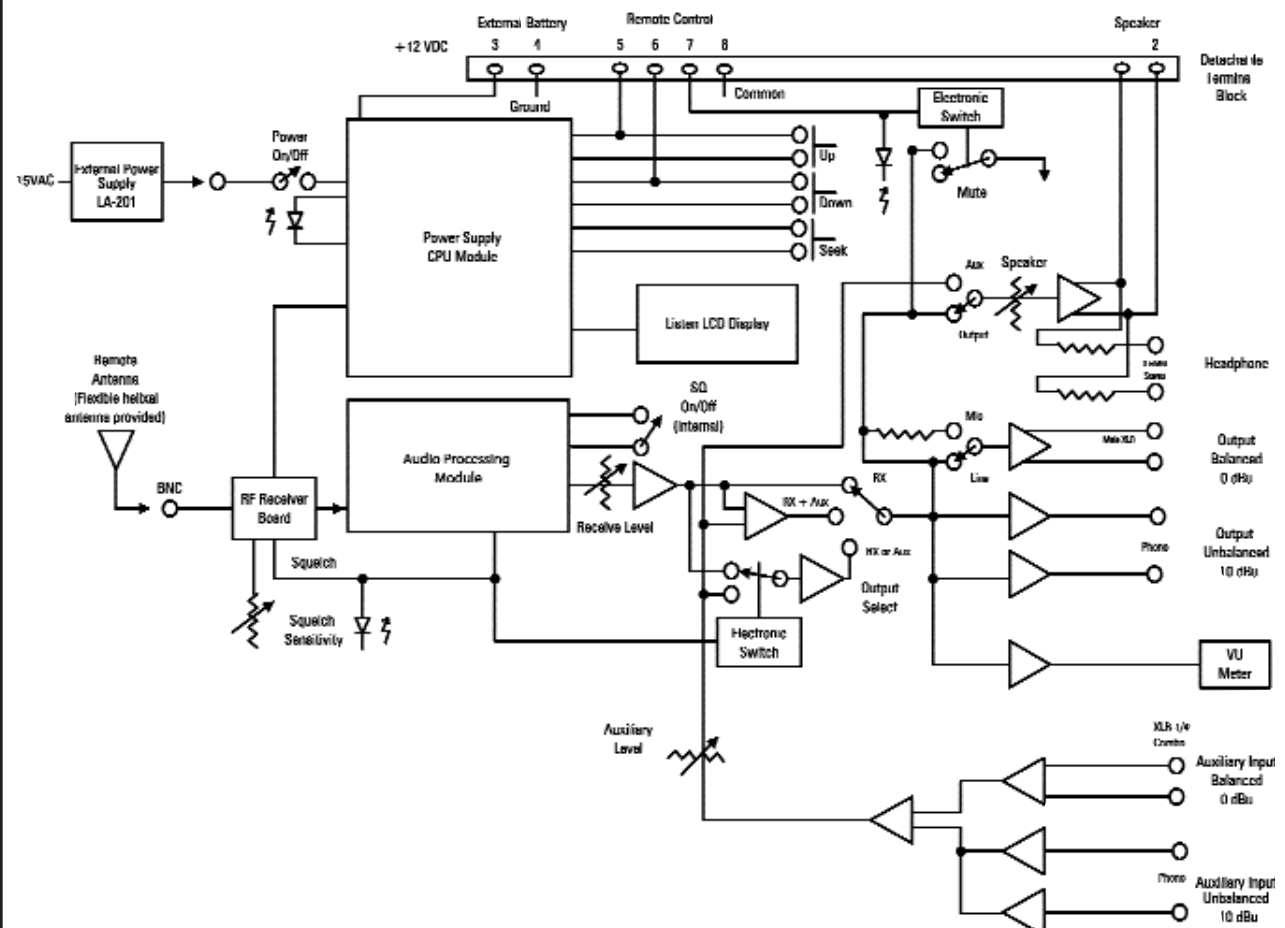


Solid lines indicate physical wiring.

## Front/Rear Panels



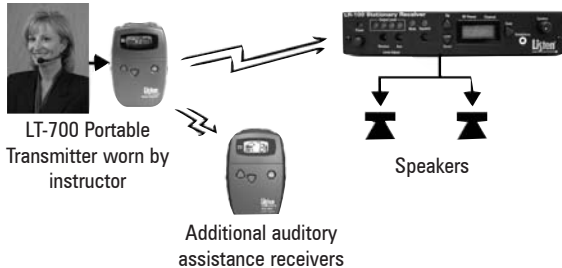
## Block Diagram



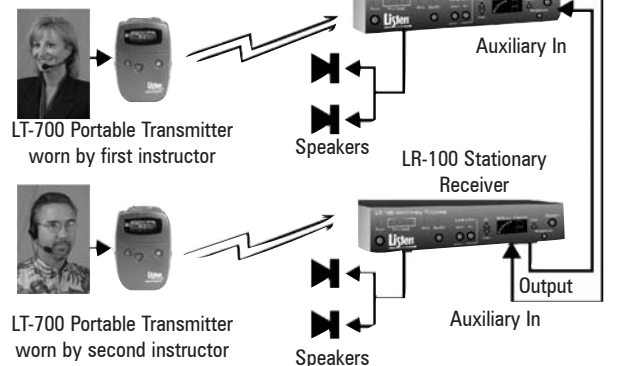
# LR-100 Stationary Receiver / Power Amplifier

## Applications (continued from page 2)

### School Sound Field



### School Sound Field for Multiple Instructors



## Specifications

### RF Frequency Range:

72 MHz: 72.025 - 75.950 MHz  
216 MHz: 216.0250 MHz - 216.975 MHz.

### Number of channels: 57.

**Sensitivity:** .6 uV typical, 1 uV maximum for 12 dB SINAD.

**Signal to Noise Ratio\*:** 80dB with SQ enabled, 60dB (72MHz), 50dB (216MHz) with SQ disabled

**Frequency Response\*:** 50 to 15 KHz +/-3dB (10 KHz at 216 MHz).

**Distortion\*:** <2% at 80% deviation.

**Auxiliary Input to Audio Output/Speaker:** 25Hz to 20KHz +/-3dB, <.2% distortion, >80dB SNR.

**Balanced Output:** Male XLR, adjustable output level, 0 dBu nominal.

**Unbalanced Output:** phono (2), adjustable output level, -10 dBu nominal.

**Balanced Auxiliary Input:** Female XLR-1/4" combo connector, adjustable input level, 0 dBu nominal

**Unbalanced Auxiliary Input:** phono (2), adjustable input level, -10 dBu nominal.

**Power Amplification:** 44 watt peak (31 watt RMS), 4 ohms.

**Remote Channel Select:** Detachable terminal block connector, momentary closure to ground for UP, DOWN and MUTE functions. Mute function is indicated on front panel.

**Squelch:** Adjustable with front panel control with LED indicator.

**Programming:** Front panel can be locked by holding down the SEEK button for five seconds; Receive channels can be programmed so user can only access certain channels.

**Antenna:** Standard BNC, flexible helical (included, 9 in (23 cm) 72 MHz, 5.5 in (14 cm) 216 MHz). Optional remote antennas available (see antenna selection guide).

**Physical:** 8.0 in (20.3 cm) W x 8.0 in (20.3 cm) D x 1.75 in (4.45 cm) H.

**Power Supply:** Provided (Listen part number LA-201, same as LT-800 power supply): Input: 120 VAC, 60Hz 19 watts; Output: 18 VAC, 1000 mA. Connector: .02 in (5 mm) OD, .01 in (25 mm) ID, barrel type.

**Optional External Battery:** 12VDC.

**\* Wireless Transmission System Specifications:** End-to-end.

## 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 50Hz to 15KHz at 72MHz, or within 3dB from 50Hz 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 an 8-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.

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