

# LS-82

## Advanced Installed Stationary IR System



The Advanced Installed Stationary IR System provides great signal coverage in a venue while keeping the overall cost of the system low. Because the LS-82 includes rechargeable batteries and a charging station, it is ideal for frequent use. Includes eight (8) stetho receivers, NiMH rechargeable battery packs and a charging station. The system can cover up to 20,000 ft<sup>2</sup> (1,858 m<sup>2</sup>). Listen's IR systems are designed for applications that require the audio signal to be isolated for security or other reasons, such as assistive listening, soundfield, language interpretation, live theater, houses of worship, courtrooms, secure rooms, and for auditory description. Custom systems available.

### Configuration

LS-82-SIR-01-GY (Grey Radiators - North America)  
 LS-82-SIR-02-GY (Grey Radiators - Asia, UK)  
 LS-82-SIR-03-GY (Grey Radiators - Euro)  
 LS-82-SIR-01-WH (White Radiators - North America)  
 LS-82-SIR-02-WH (White Radiators - Asia, UK)  
 LS-82-SIR-03-WH (White Radiators - Euro)

### Highlights

- Accommodates up to eight (8) listeners – great for applications to accommodate small to medium sized groups.
- Outstanding coverage – 20,000 ft<sup>2</sup> (1,858 m<sup>2</sup>).
- Secure wireless communication – ideal for applications where isolation of the signal is important.
- Up to four (4) channels mono or stereo – no need to sacrifice multiple channels to achieve stereo transmissions.
- Easy to specify, install and use.
- Outstanding performance ensures crystal clear sound for listeners.

### Requires

None

### Used With

LR-44 IR Lanyard 4-Channel Receiver

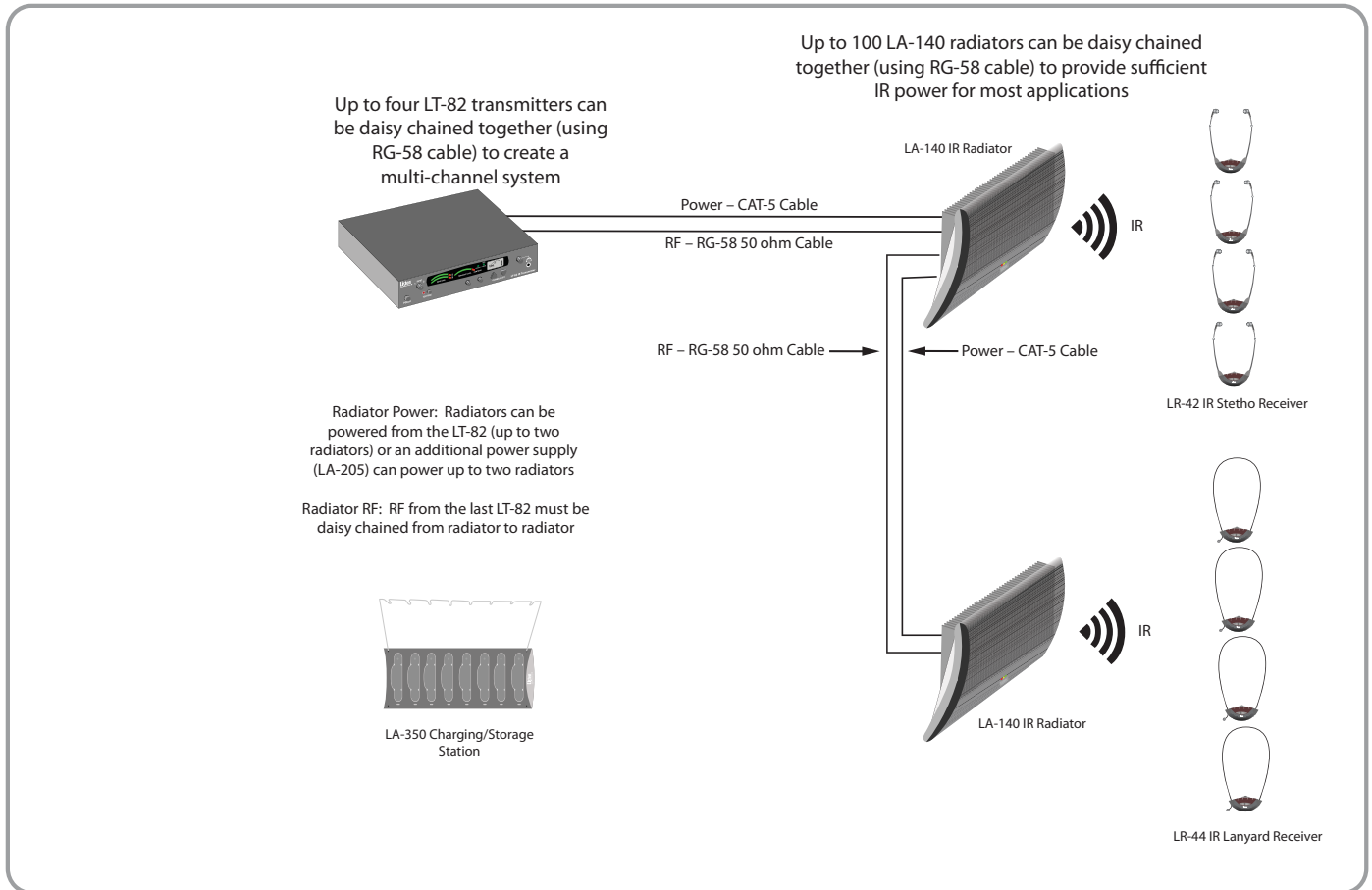
### Architectural Specification

The LS-82 Advanced Installed Stationary IR System shall use infrared (IR) light to transmit audio from IR emitting radiators to portable IR receivers. The system shall use IR modulating frequencies above 2.0 MHz. The system transmitter shall have a timer that shuts off the carriers after 30 minutes when no audio is present at the transmitter. Channel selection shall be capable of being locked. The system shall be capable of transmitting on four (4) carriers and each of the four (4) carriers shall be capable of transmitting a mono or stereo signal. The system shall have a frequency response of 100 to 15 KHz (+/-3 dB), less than 2% distortion and shall have signal to ratio of greater than 60 dB. A single emitting radiator shall have a transmitting area of no less than 10,000 ft<sup>2</sup> (929 m<sup>2</sup>) (one carrier) or greater for each radiator specified. The radiator shall be powered via CAT-5 cabling and the RF from the transmitter shall be carried by 50 ohm coaxial cable. The receivers will be powered by NiMH rechargeable battery packs and include a compact charging station.

### Includes

- (1) LT-82 Stationary IR Transmitter
- (1) LA-326 Universal Rack Mounting Kit
- (2) LA-140 Stationary IR Radiator
- (8) LR-42 IR Stethoscope 4-Channel Receiver
- (8) LA-364 NiMH Rechargeable Battery Pack for IR Receivers
- (1) LA-350 8-Unit IR Charging/Storage Station
- (1) LA-304 Assistive Listening Notification Signage Kit

## Stationary IR Block Diagram Multi-Channel/Radiator System



## Accessories



### **Cables / Connectors**

LA-70 CAT-5e Cable (Per ft.)  
LA-71 RJ-45 CA-5e Connector (10)  
LA-72 RJ-45 CAT-5e Coupler  
LA-89 Interconnection Coaxial Cable  
LA-112 RG-58 50 Ohm Coaxial Cable (Per ft.)  
LA-115 RG-58 BNC Coupler  
LA-127 RG-58 BNC Connector  
LA-391 RG-58 50 Ohm Preassembled Coaxial Cable (Per ft.)  
LA-392 RG-59 75 Ohm Preassembled Coaxial Cable (Per ft.)  
LA-393 NiMH Rechargeable Battery Pack for IR Receivers



### **Mounting**

LA-326 Universal Rack Mounting Kit  
LA-337 IR Radiator Floor Stand  
LA-342 Stationary IR Dual Radiator Mounting Bracket



### **Power / Charging Supply**

LA-152 IR Receiver Battery Compartment (Non-charging)  
LA-205 (01,02,03) 30 VDC Extension/Replacement Power Supply for LA-140/ LT-82  
LA-350 (01,02,03) 8-Unit IR Charging/Storage Station  
LA-351 8-Unit IR Storage Station  
LA-364 NiMH Rechargeable Battery Pack for IR Receivers



### **Cases**

LA-320 Configurable Carrying Case



### **Headphones**

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



### **Miscellaneous**

LA-150 Replacement Lanyard for LR-44  
LA-151 Replacement Eartips for LR-42 (20)  
LR-44 IR Lanyard 4-Channel Receiver

## Related Systems

### LS-80 – Basic Stationary IR System

Includes:

- (1) LT-82-01 Stationary IR Transmitter
- (1) LA-140-GY Stationary IR Radiator
- (4) LR-42 Stationary IR Stethoscope 4-Channel Receiver
- (4) LA-363 High Capacity AAA Alkaline Batteries (2)
- (1) LA-304 Assistive Listening Notification Signage Kit



### LS-81 – Performance Stationary IR System

Includes:

- (1) LT-82-01 Stationary IR Transmitter
- (1) LA-326 Universal Rack Mounting Kit
- (2) LA-140-GY Stationary IR Radiator
- (4) LR-42 Stationary IR Stethoscope 4-Channel Receiver
- (4) LA-363 High Capacity AAA Alkaline Batteries (2)
- (1) LA-351 Stationary IR Storage Station
- (1) LA-304 Assistive Listening Notification Signage Kit



### LS-83 – 4-Channel, 48-Listener Stationary IR System

Includes:

- (4) LT-82-01 Stationary IR Transmitter
- (2) LA-326 Universal Rack Mounting Kit
- (3) LA-89 Interconnection Coaxial Cable
- (8) LA-140-GY Stationary IR Radiator
- (48) LR-42 Stationary IR Stethoscope 4-Channel Receiver
- (48) LA-364 NiMH Rechargeable Battery Pack for Stationary IR Receivers
- (6) LA-350-01 8-Unit IR Charging/Storage Station
- (2) LA-304 Assistive Listening Notification Signage Kit



### LS-84 – Expanded Performance (2-Channel) Stationary IR System

Includes:

- (2) LT-82-01 Stationary IR Transmitter
- (1) LA-326 Universal Rack Mounting Kit
- (1) LA-140-GY Stationary IR Radiator
- (5) LR-42 Stationary IR Stethoscope 4-Channel Receiver
- (5) LA-364 NiMH Rechargeable Battery Pack for Stationary IR Receivers
- (1) LA-350-01 8-Unit IR Charging/Storage Station
- (1) LA-304 Assistive Listening Notification Signage Kit



### LS-85 – Expanded Basic Stationary IR System

Includes:

- (1) LT-82-01 Stationary IR Transmitter
- (1) LA-326 Universal Rack Mounting Kit
- (1) LA-140-GY Stationary IR Radiator
- (3) LR-42 Stationary IR Stethoscope 4-Channel Receiver
- (1) LR-44 Stationary IR Lanyard 4-Channel Receiver
- (1) LA-166 Neck Loop
- (1) LA-165 Stereo Headphones
- (4) LA-363 High Capacity AAA Alkaline Batteries (2)
- (1) LA-304 Assistive Listening Notification Signage Kit



## Frequently Asked Questions

- Q** How many carriers does the LT-82 Stationary IR Transmitter produce?  
**A** One.
- Q** How many carriers can be produced simultaneously in a room?  
**A** Four. You will need one LT-82 Stationary IR Transmitter per carrier.
- Q** Is there any performance degradation in stereo mode?  
**A** Yes, stereo operation raises the noise floor slightly.
- Q** Can I operate some channels in mono and others in stereo?  
**A** Yes.
- Q** How are radiators connected to the LT-82?  
**A** The carrier (signal) is connected using RG-58 coaxial cable; power is connected using standard CAT-5 cabling.
- Q** Can the LT-82 be operated on 230 VAC?  
**A** Yes, the LT-82 has a universal power supply that can be used anywhere in the world.
- Q** How much coverage is provided with the LA-140 radiator?  
**A** Approximately 10,000 ft<sup>2</sup> (929 m<sup>2</sup>).
- Q** Does the number of carriers affect the coverage?  
**A** Yes, for two carriers, the coverage per carrier is halved. For four carriers, the coverage per carrier is one-fourth.
- Q** How is power delivered to the radiator?  
**A** Power is delivered with CAT-5 cables (connected between the radiator and either the LT-82 transmitter or the LA-205 power supply).
- Q** How many radiators can be powered from the LT-82 or LA-205 power supply?  
**A** Two.
- Q** What is the purpose of the delay compensation switch?  
**A** This switch allows you to set up delay timing in a multi-radiator system so that each radiator receives the carrier at exactly the same time. This prevents signal dropouts that can be caused by out-of-phase signals (multi-path). With Listen's delay compensation switch, it is not necessary to cut all of your coaxial cables to the same length - your shorter runs can use shorter cables, keeping your installation clean (and cost-effective).

## Frequently Asked Questions

- Q** How do you replace the batteries in the receiver?
- A** For non-rechargeable batteries (AAA alkaline), remove the battery compartment and replace the batteries with fresh AAA alkaline batteries. For rechargeable NiMH batteries, simply replace the sealed battery pack with a freshly charged pack.
- Q** How do I recharge the NiMH batteries?
- A** Use the Listen LA-350 8-Unit Charging/Storage unit. This unit will charge batteries that are in receivers or out of receivers.
- Q** How long will the NiMH batteries last until they need to be recharged?
- A** You should receive 15 hours of use from each charge of the batteries.