



The LA-140 IR radiator/emitter packs high infrared power in a small and attractive design, with your choice of grey or white packaging. Designed for easy installation using standard components, the LA-140 is powered via CAT-5 cabling while the RF modulated carriers are delivered via standard RG-58 coaxial cable. Mounting brackets are included for wall, ceiling, desk, mic stand and tripod mounting. Power can be supplied by the LT-82 transmitter or from a separate power supply (LA-205). Built-in delay compensation prevents signal cancellation (multi-path) problems and eliminates the piled-up cabling that is required with other systems. The LA-140 is used for government compliance (such as ADA), assistive listening, language interpretation, live theatre, houses of worship, courtrooms, secure rooms and for auditory description.

## Configuration

LA-140-GY (Grey)  
LA-140-WH (White)

## Highlights

- Outstanding coverage - 10,000 sf (929 sm)
- Two radiators can be powered from one LT-82 transmitter or optional power supply using standard CAT-5 cabling - eliminating the need for multiple cables
- White or grey color - allows for a variety of aesthetic settings
- Includes wall, ceiling, desk, mic stand and tripod mounting brackets - gives multiple options for mounting
- Units can be horizontally or vertically mounted together - doubles the power in a small footprint
- Radiator diodes are turned off if no audio signal is present at the transmitter after 30 minutes - saves radiator diode life
- Delay compensation - ensures no drop out in the IR signal

## Architectural Specification

The radiator-emitter shall have a transmitting area of no less than 10,000 square feet (one carrier) or greater for each radiator specified when used with specified receiver. The radiator shall be powered via CAT-5 cabling and the RF from the transmitter shall be carried by 50 ohm coaxial cable. The radiator shall have three indicating LEDs for power, no carrier present and carrier present. The radiator LEDs shall be deactivated after 30 minutes if there is no audio signal present from the transmitter. The radiator shall come in a white or grey color and shall include all of the mounting hardware capable of mounting the radiator on a wall, on a ceiling, in a corner, on a desk, on a mic stand or on a tripod. The Listen LA-140 is specified.

## Requires

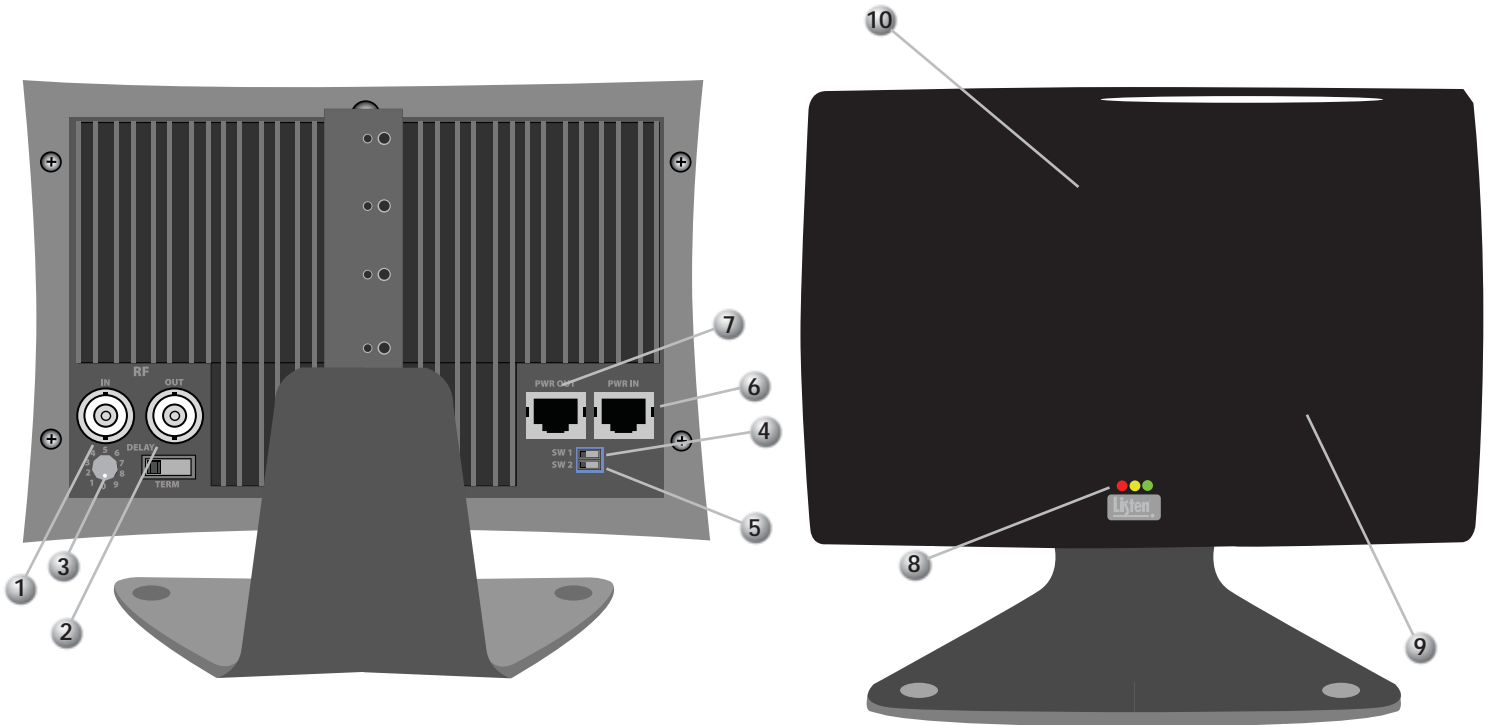
LT-82 Stationary IR Transmitter

## Includes

LA-140 IR Radiator  
Mounting hardware for one unit (allows for wall, ceiling, desk, mic stand and tripod mounting)  
25 feet (7.6 meters) of RG-58 coaxial cable  
25 feet (7.6 meters) of CAT-5 cable  
Quick Reference Card

## Used With

LR-42 Stethoscope 4-Channel IR Receiver  
LR-44 Lanyard 4-Channel IR Receiver



## Product Features

1. RF input connector - this is the connection from the LT-82 transmitter or from the output of another radiator.
2. RF output connector - use this to send the RF input to another radiator.
3. Delay compensation - allows you to set different delays so all radiators have the same timing. This prevents drop-outs caused by signals out of phase.
4. LED illumination switch - use this to turn on/off the illumination of the front panel LEDs.
5. Compatibility switch - use this switch when using a non-Listen transmitter.
6. Termination switch - use to terminate the coaxial cable.
7. Power connection from LT-82 transmitter or optional power supply (LA-205).
8. Power connection to (optional) second radiator.
9. LEDs - Three LEDs that indicate power, no carrier present and carrier present.
10. Color: Two different colors. Available in Grey (LA-140-GY) or White (LA-140-WH). Mounting brackets and supplied cables match the radiator.

## Accessories



LA-205

IR Extended Power Supply  
(powers two LA-140 radiators)  
Note: You will only need the LA-205 if you are using more than two LA-140 radiators per LT-82 transmitter or if you wish to remote power the radiator(s).



LA-342

IR Dual Radiator Mounting Bracket  
(for mounting two radiators vertically or horizontally)  
-includes RG-58 coaxial cable and CAT-5 cable to interconnect the two radiators



LA-70  
CAT-5 Cable  
specify length



LA-112

RG-58 50 Ohm Coaxial Cable  
specify length



LA-115  
RG-58 BNC to  
BNC Coupler



LA-71  
RJ-45 CAT-5 Connector  
(Pkg. of 10)



LA-391  
RG-58/50 Ohm Coaxial Cable  
preassembled, specify length



LA-127  
RG-58 BNC Connector



LA-393  
RJ-45/CAT-5 Cable  
preassembled, specify length



LA-72  
RJ-45 to RJ-45 CAT-5 Coupler



LA-337  
IR Radiator Floor Stand

Specifications		LA-140
RF	Frequency Range	1 MHz - 5 Mhz
	Input	BNC Connection. -25dbm to -5dbm input nominal
	Output	BNC Connection. -15 dbm nominal
	Compliance	FCC Part 15, Industry Canada, CE
	Coverage Area	10,000 sf (929 sm) when used with Listen Receivers

Controls	User Controls	Termination Switch, Delay Compensation Switch, Indicator LEDs on/off
----------	---------------	--

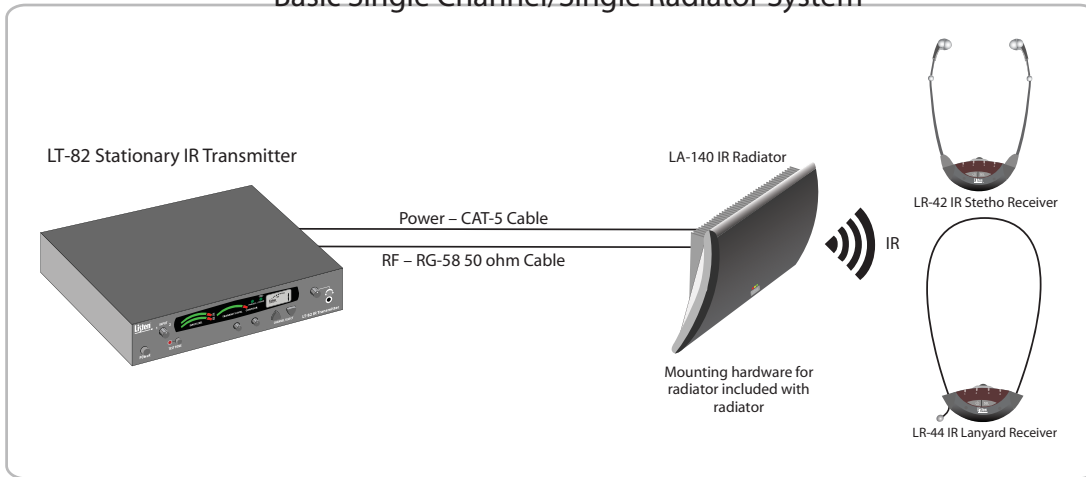
Indicators	Red LED	Indicates power is present
	Yellow LED	Indicates no carrier is present.
	Green LED	Indicates carrier and power are present and radiator is emitting IR signal.

Power	Input	RJ-45 connector. 30VDC, powered from transmitter via CAT-5 cable or optional LA-205 power supply.
	Output	RJ-45 connector. 30 VDC, powers up to one additional radiator. (Maximum two radiators powered from each LT-82 transmitter)
	Emitter Power	3 Watts

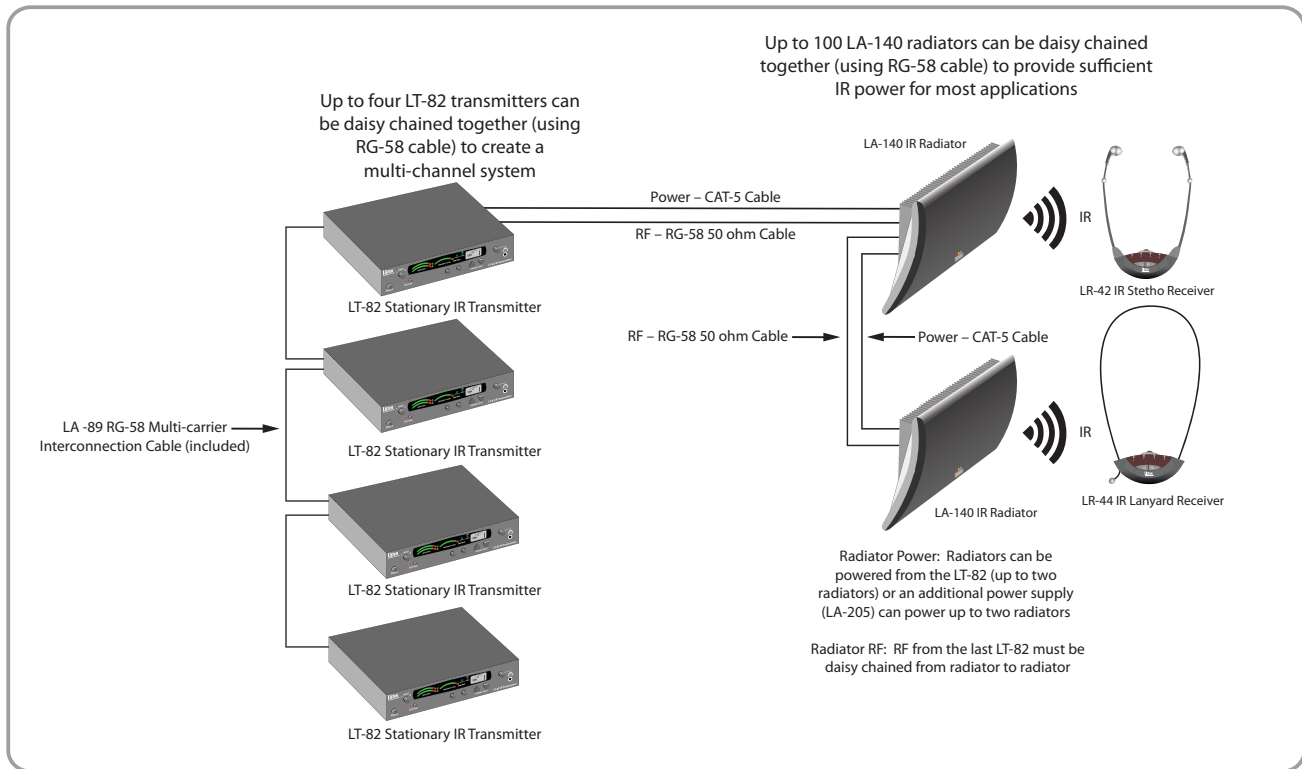
Physical	Dimensions (H x W x D)	5.5 x 8 x 2.6 inches (140 x 203 x 66 mm)
	Color	LA-140-GY (Grey), LA-140-WH (White)
	Unit Weight	2.1 lbs (.95 kg)
	Unit Weight with Wall/ Ceiling Mounting hardware	2.35 lbs (1.05 kg)
	Shipping Weight	4 lbs (1.8 kg)

Environmental	Temperature - Operation	-10 C (14 F) to +40 (104 F)
	Temperature - Storage	-20 C (-4 F) to +50 (122 F)
	Humidity	0 to 95% relative humidity, non-condensing

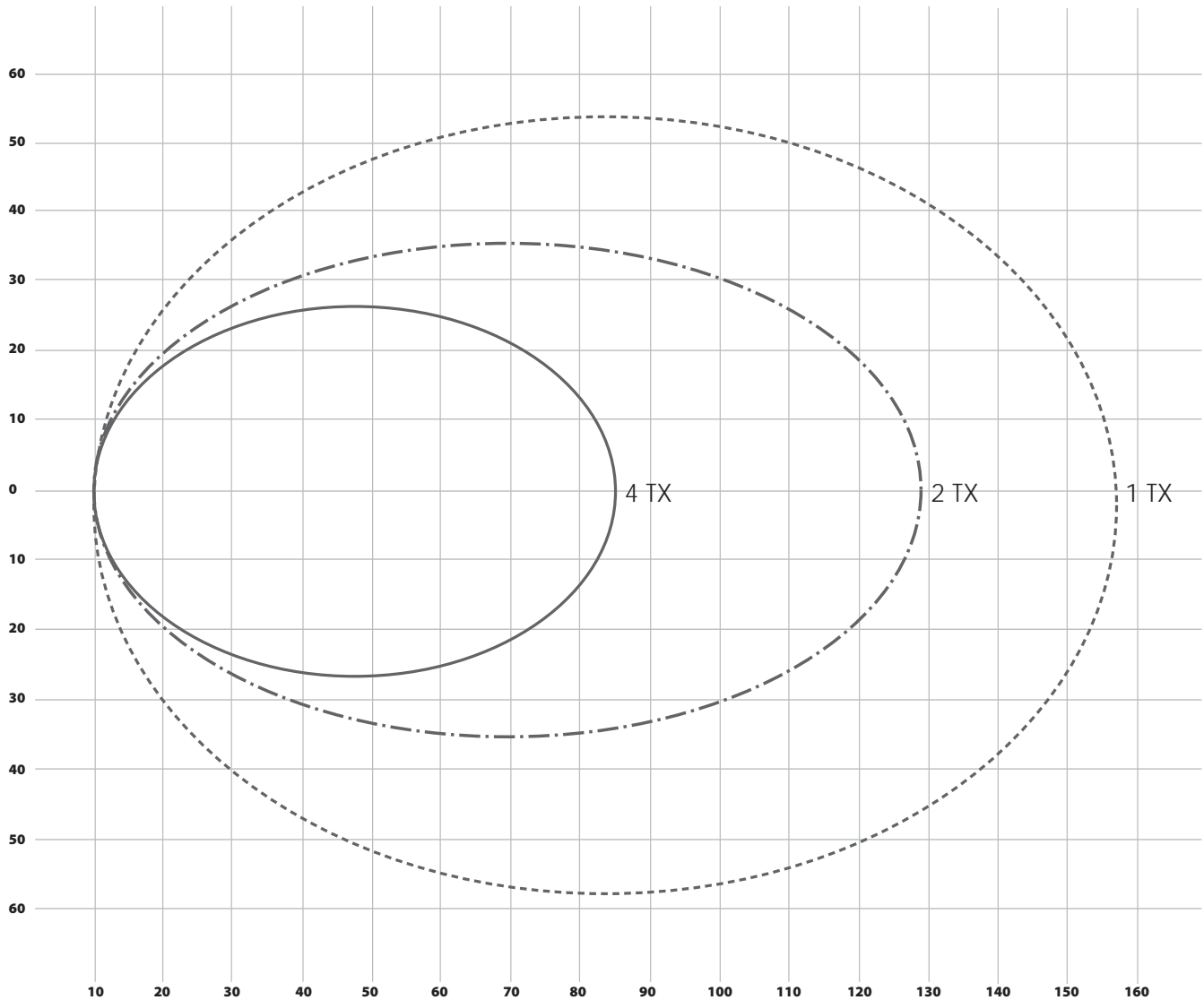
### Stationary IR Block Diagram Basic Single Channel/Single Radiator System



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



## Radiator Footprint



Except in small rooms it is recommended that at least two radiators be used to ensure good coverage and minimal shading. Listen radiators (when used with Listen receivers) will cover approximately 10,000 sf (929 sm) for one channel as indicated in the diagram below (note the coverage decreases as the number of channels goes up). For two channels, one radiator will cover 5,000 sf (465 sm) and for four channels, one radiator will cover 2,500 sf (232 sm).

## Related Systems

### LS-80-SIR – Basic Stationary IR System

Includes:

- (1) LT-82 Stationary IR Transmitter
- (1) LA-140 Stationary IR Radiator
- (4) LR-42 Stethoscope 4-Channel IR Receivers
- (4) LA-363 High Performance AAA Alkaline Battery sets (Pkg of 2)
- (1) LA-304 ADA Compliance Signage Kit



### LS-81-SIR – Performance Stationary IR System

Includes:

- (1) LT-82 Stationary IR Transmitter
- (1) LA-326 Universal Rack Mounting Kit
- (2) LA-140 Stationary IR Radiator
- (4) LR-42 Stethoscope 4-Channel IR Receivers
- (4) LA-363 High Performance AAA Alkaline Battery sets (Pkg of 2)
- (1) LA-351 8-Unit IR Receiver Storage Station
- (1) LA-304 ADA Compliance Signage Kit



### LS-82-SIR – Advanced Installed IR System

Includes:

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



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

Includes:

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



## Frequently Asked Questions

- Q** How much coverage is provided with the LA-140?  
**A** Approximately 10,000 square feet (929 square meters).
- Q** Does the number of audio sources (carriers) affect the coverage?  
**A** Yes. For two sources (carriers), the coverage per carrier is halved. For four carriers, the coverage per carrier is one-fourth.
- Q** How many radiators can you use on a system?  
**A** Up to 100.
- Q** How many radiators will I need?  
**A** Refer to the technical resource section of the Listen website for assistance in making this calculation.
- Q** Does the LA-140 come with a power supply?  
**A** No. You must use either the power supply included with the LT-82 transmitter or purchase the optional LA-205 power supply.
- 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 optional 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).
- Q** How do I connect multiple radiators?  
**A** You can daisy-chain the carrier between all radiators using RG-58 cables. Power for up to two radiators can be daisy-chained using a short length of CAT-5 cabling or you can power two radiators off one transmitter.
- Q** Can I disable the LEDs on the radiator?  
**A** Yes, the LEDs can be turned off at a switch on the back of the radiator.
- Q** How many emitting diodes does the LA-140 have?  
**A** The LA-140 radiator has 84 diodes. It has seven columns of diodes with twelve diodes each. If one diode goes out, you will lose only the diodes on that column.