



#### Configuration:

- LT-84-01 ListenIR Transmitter/Radiator Combo (North America)
- LT-84-02 ListenIR Transmitter/Radiator Combo (Asia, UK)
- LT-84-03 ListenIR Transmitter/Radiator Combo (Euro)
- LT-84-04 ListenIR Transmitter/Radiator Combo (Australia)

#### Product Overview:

The LT-84 ListenIR 2-channel transmitter-radiator (Pat. 9,712,246) from Listen Technologies provides venues, businesses, government agencies, and more with an affordable and easy-to-use assistive listening solution.

Offering twice the IR power and up to six times the coverage area of similar products, the LT-84 can transmit a clear, reliable signal across 2,787 square meters (30,000 square feet). This signal range ensures that users in any mid-sized space, from the boardroom to the courtroom and beyond, enjoy an uninterrupted audio performance.

The LT-84 is also the first infrared assistive listening system to feature expansion radiators (LA-141), which provide delay compensation to ensure that there are no signal cancellation dropouts. Up to four (4) expansion radiators (LA-141) can be added to the system to offer additional coverage (when mounted within 30.48 m [100 ft.] from the unit).

In addition, the LT-84 is the only two-channel transmitter-radiator that can transmit on up to four different frequencies (2.3 MHz, 2.8 MHz, 3.3 MHz, or 3.8 MHz). This flexibility in the field makes setup and operation even easier, while also eliminating the need to purchase separate, frequency-specific transmitter-radiator units.

With the included mounting hardware, and the flexible frequency selection and input connectivity, the LT-84 is an ideal way to add infrared assistive listening capabilities and ADA compliance to your business or venue.

#### Highlights:

- Affordable, effective, and expandable solution ideal for small to mid-size spaces such as classrooms, courtrooms, boardrooms, and more
- Multiple frequency options offer additional flexibility and simplicity during installation and setup
- Offers gapless coverage up to 2,787 square meters (30,000 square feet)
- Can be expanded with up to four (4) LA-141 expansion radiators for additional coverage area
- One-cable design utilizes a single CAT-5e to carry both power and signal to LA-141 expansion radiators
- Multiple input options for easier setup and operation

#### Includes:

One (1) LT-84 ListenIR 2-Channel Transmitter/Radiator Combo  
One (1) LA-210 12 VDC Universal Power Supply/Power Cord  
One (1) LA-344 Flexible Mounting Hardware  
Two (2) Phoenix Type Connectors  
One (1) LA-303 Multi-Lingual Assistive Listening Notification Sign  
One (1) Quick Start Guide

#### Product Specification: ListenIR 2-Channel Transmitter/Radiator Combo

##### Audio

|                    |   |
|--------------------|---|
| Frequency Response | 20 Hz - 20 kHz (+/- 1 dB) Line Input, 63 Hz - 15 kHz (+/- 3 dB) System Specification (wireless end-to-end with LR-4200) |
|--------------------|---|

| Product Specification: ListenIR 2-Channel Transmitter/Radiator Combo |   |
|--|---|
| Signal-to-Noise Ratio  | > 70 dB (SNR) Line Input, > 60 dB (SNR) System Specification (wireless end-to-end with LR-4200)   |
| Microphone Input   | Two (2) 3.5 mm (0.14 in.) Tip/Sleeve connector, -30 dBu nominal input, +14 dB headroom, impedance 4.4k Ohms, 5 VDC bias supply  |
| Total Harmonic Distortion  | < 0.1% (THD) Line Input, < 2% (THD) System Specification (wireless end-to-end with LR-4200)   |
| Unbalanced Line Input  | Stereo/Mono Input. Two (2) Dual (RCA) Phono connectors, unbalanced, -10 dBu nominal input, +14 dB headroom, impedance 10k Ohms  |
| Balanced Line Input  | Mono Input. Two (2) Phoenix Type connector, balanced, + 4 dBu nominal input, +14 dB headroom, impedance 100k Ohms   |
| Controls   |   |
| Power Switch   | Three (3) position switch - Power OFF, Power ON-Indicator Lights OFF, Power ON-Indicator Lights ON  |
| Carrier Frequency Selection  | Two (2), four (4) position rotary switches (2.3 MHz, 2.8 MHz, 3.3 MHz, 3.8 MHz)   |
| Level Control Knob   | Two (2) audio taper rotary potentiometer, counter-clockwise decreases input mix level, clockwise increases input mix level  |
| Indicators   |   |
| Power Supply LED   | Green LED on in-line power supply indicates AC power is applied   |
| Audio Level Indicators   | Two (2) Green LEDs, two (2) Red LEDs, Green LED indicates Audio presence and Red LED indicates peaks in the audio   |
| RJ-45 Amber LED  | Solid Amber indicates carrier is present and IR is being transmitted  |
| RJ-45 Green LED  | Solid Green indicates power is applied to unit, flashing indicates unit has entered power save mode   |
| RF   |   |
| Carrier Frequencies  | 2.3 MHz, 2.8 MHz, 3.3 MHz, 3.8 MHz, Selectable  |
| Number of Channels   | Two (2) channels, Selectable carrier frequency  |
| Frequency Accuracy   | +/- .005% stability 0 to 50 °C  |
| Transmitter Stability  | 50 PPM  |
| Modulation   | FM Wideband, $\pm 50$ kHz deviation max, 50 $\mu$ S pre-emphasis  |
| Power Save Mode  | Carrier will shut off when no audio is present for 15 minutes on both channels to preserve radiator life  |
| Expansion Link Output  | Two (2) RJ-45 connectors - Provides RF Signal and Power, CAT-5e cable 24 AWG, 100 ft. maximum cable length, two (2) LA-141s per output connector  |
| IR   |   |
| Coverage Area  | 2,787 m <sup>2</sup> (30,000 ft <sup>2</sup> ) single channel with LR-4200-IR/LR-5200-IR receivers or 697 m <sup>2</sup> (7,500 ft <sup>2</sup> ) single channel with LR-42/LR-44 receivers |
| IR Emitter Power   | 1.49 W  |
| Power  |   |
| Power Supply Input   | 100-240 VAC, 50-60 Hz   |
| Power Supply Output  | 12 VDC, 4 A, 48 W   |
| Power Supply Connector   | 2.5 mm ID barrel connector, center positive   |
| Power Output   | Two (2) RJ-45 connectors. providing Power and RF signal for up to two (2) LA-141 expansion radiators on each output   |
|  |   |

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|--|---|
| Power Supply Type  | In-line switching mode power supply, Listen part number LA-210  |
| Power Supply Line Cord   | IEC line cord, North America Type B (LT-84-01), Asia and UK Type G (LT-84-02), Euro Type C (LT-84-03), Australia Type I (LT-84-04)  |
| Physical   |   |
| Color  | Black with White Silk Screening   |
| Unit Weight with Power Supply  | 1.8 lbs. (0.8 kg)   |
| Shipping Weight  | 3.4 lbs. (1.54 kg)  |
| Mounting   | Can be mounted on a wall, ceiling, or table with provided hardware (screws and hollow wall anchors not provided). Optional LA-347 Wall Box Mounting Plate is available for mounting to a standard single gang electrical box. |
| Dimensions (H x W x D)   | 1.5 x 10.7 x 4.1 in. (3.81 x 27.2 x 10.5 cm)  |
| Unit Weight  | 0.8 lbs. (0.4 kg)   |
| Environmental  |   |
| Temperature - Operation  | 14 °F (-10 °C) to +104 °F (40 °C)   |
| Temperature - Storage  | -4 °F (-20 °C) to +122 °F (50 °C)   |
| Relative Humidity  | 0 to 95% relative humidity, non-condensing  |
| Compliance   |   |
| Standards  | FCC part 15, ICS-03, CE, UL, CUL, C-Tick, CCC, PSE, KC, GS, RoHS, WEEE  |
| Power Supply Compliance Marks  | CUL, UL, CE, CCC, C-Tick, KC, PSE, GS, FCC, RoHS  |