

Model No.

LT-8A-T870-VB

Lay-in Tile Ceiling Loudspeaker

INCLUDES:

- 8-inch 50W coaxial driver
- 70V 8W transformer
- 1x2 grille with subplate
- 0.8 cu.ft. volume enclosure



LT SERIES SPEAKERS are pro systems made for quick installation in suspended lay-in tile ceilings. This model features a premium 8-inch 50W coaxial driver, 70V 8W transformer, 1x2 grille with subplate and 0.8-cu.ft. volume backbox. The patented* 1x2 assembly features an integral T-bar support that replaces one-half of a 2x2 or one-fourth of a 2x4 ceiling tile.

FEATURES

PERFORMANCE: This model is ideal for applications providing pro sound or foreground music.

DRIVER (8A50): This 8-inch 50W coaxial driver represents an upgrade in performance over standard commercial coaxial drivers with greater power handling, lower distortion, and smoother musical sound. The driver is engineered for very high quality music and paging especially in large venues such as restaurants, hotel lobbies, retail stores and similar locations where the listening experience is a key part of customer satisfaction. It provides excellent power handling and smooth sound reproduction.

- Driver magnets: 20 oz. LF ceramic magnet with frequency response of 40Hz-19.4kHz (± 6 dB) and 2 oz. HF ceramic magnet with frequency response of 40Hz-20kHz (± 7.3 dB). Average sensitivity is 90.6dB (measured 1W/1M).
- Driver weight: 3.5 lbs.
- Driver depth: 3.85 in.

TRANSFORMER: Factory-wired 70V transformer with primary taps at 1.1, 2, 4 and 8W.

GRILLE WITH SUBPLATE (1X2): Fine-perforation steel grille with white powder epoxy finish is designed to provide maximum free-air space for excellent sound transmission, while maintaining an unobtrusive appearance in new or existing lay-in tile ceilings (non-regular, flush). Includes black subplate, restraint tab and hole for code compliance, and patented* integral T-bar to support the neighboring cut tile.

- The 1x2 (12.92-in. x 23.75-in.) grille/subplate assembly replaces one-half of a 2x2 or one-fourth of a 2x4 ceiling tile.

ENCLOSURE: Certified U.S. steel enclosure with black powder epoxy finish.

- Volume: 0.8-cu.ft.
- 1.5-inch thick acoustic lining

INSTALLATION:

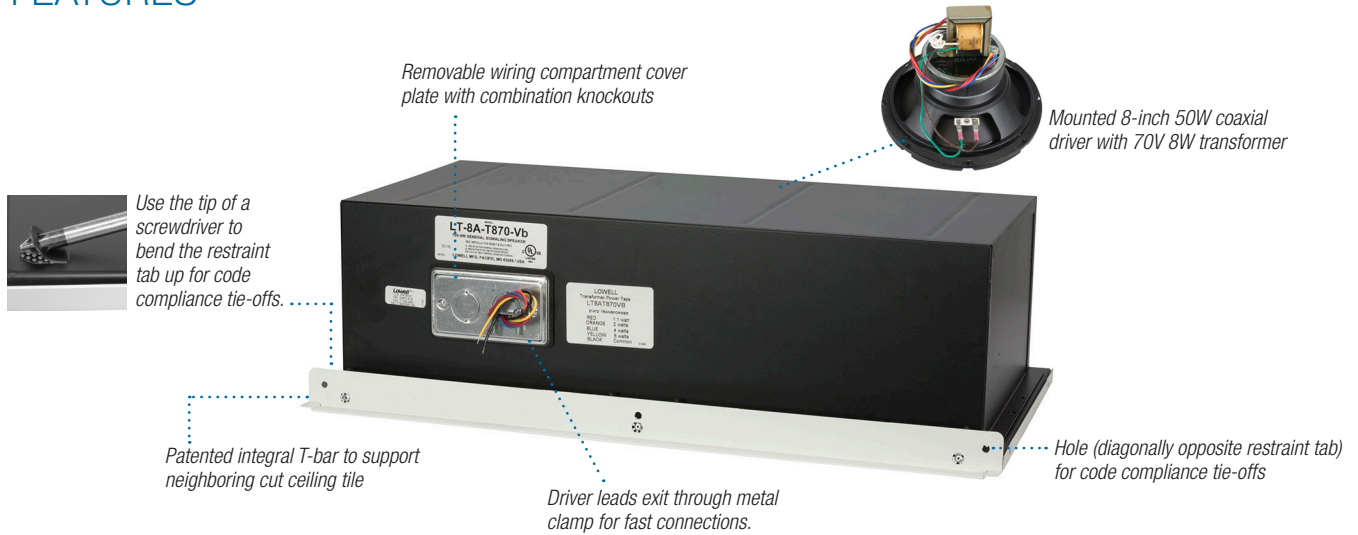
- Assembly Dimensions: 23.75-in.L x 12.92-in.W x 7-in.H
- Patented* T-bar Support: Integral 2-foot T-bar attached to grille assembly supports the neighboring cut ceiling tile.
- Restraint Tab: The assembly features a restraint tab in one corner and a hole in the diagonally-opposite corner for code compliance tie-offs.
- Wiring Compartment Cover: The enclosure features a removable dual-knockout wiring compartment cover plate with 1/2 to 3/4-inch combination knockouts.
- Connections: Driver leads exit enclosure through a metal clamp for fast connections — just splice connecting wires, push inside the enclosure, and tighten clamp.

COMPLIANCE & CERTIFICATIONS:

- UL 1480A General Signaling (USA)
- UL 2043 suitable for use in air handling space
- CSA C22.2 No. 205-12 General Signaling (Canada)
- Made in the U.S.A. with certified U.S. steel and global components.

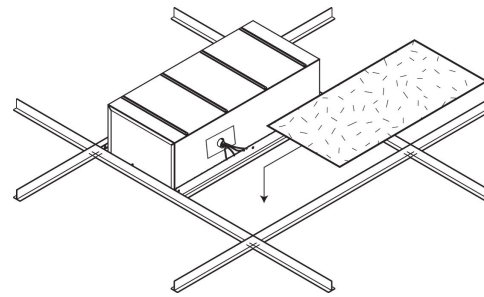
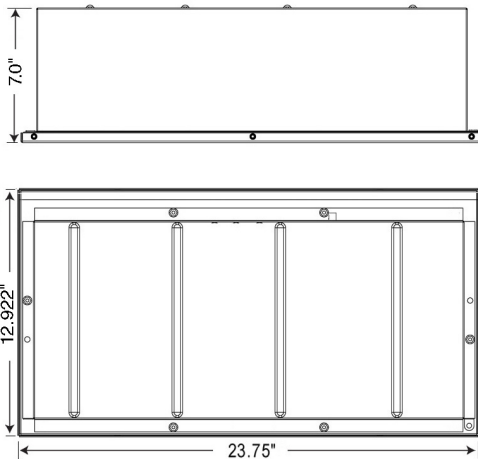
**U.S. patents 7,120,269; D467,579; 7,643,647*

FEATURES



TECHNICAL DRAWINGS

Dimensions are provided in inches.



The 1x2 neighboring (cut) ceiling tile rests on the speaker's integral T-bar support.

DRIVER SPECIFICATIONS

Driver No.	Size	Power Rating	Type	Ceramic Magnet	Frequency Response	Dispersion @ 2000Hz(-6dB)	Voice Coil Impedance	Voice Coil Diameter	Sensitivity 1W/1M	Max SPL*	Driver Depth	Driver Weight
8A50	8 in.	50W	coaxial	20 oz. LF 2 oz. HF	40Hz-19.4kHz (±6dB) 40Hz-20kHz (±7.3dB)	90 degrees conical	8 ohms	1.4 in. LF 0.53 in. HF	90.6dB avg.	107.6dB	3.85 in.	3.5 lbs.

*Calculated value 1M @ driver power rating. See spec sheet for driver 8A50 for additional information.

TEST METHODOLOGIES: Lowell speaker systems are thoroughly tested to provide specifiers and contractors with accurate data. Test equipment includes the Gold-Line TEF-20 analyzer.

- **POWER HANDLING:** specification is based on E.I.A. Standard RS-426B.
- **FREQUENCY RESPONSE:** describes the usable response range defined by a ± 6dB window, which is useful in predictive engineering calculations.
- **SENSITIVITY:** is a computer calculation of the log average sound pressure level (SPL) over the entire engineering bandwidth as given in the Frequency Response (± 6dB).
- **MAXIMUM SPL:** is calculated based on the Power Handling and the measured log average Sensitivity where Maximum SPL = (Sensitivity @ 1W1M) + 10 log (Power Handling).
- **DISPERSION ANGLE:** is defined as the angle of coverage that is no more than 6dB down from the on-axis value averaged over the 2kHz octave band. Since speech intelligibility is dependent upon the 2kHz octave, this specification is useful in designing voice reinforcement and music systems that provide even coverage and intelligibility. The polar plots illustrate how the system performs when hung in free space (360°) or half-space (180°) in the case of a recessed speaker.

A&E SPECIFICATIONS:

The loudspeaker to mount in a suspended tile ceiling (non-regular, flush) shall be Lowell Model No. LT-8A-T870-VB. The 1x2 assembly shall replace one-half of a 2x2 or one-fourth of a 2x4 ceiling tile and shall feature an integral T-bar to support the adjacent cut ceiling tile. Each speaker shall include a factory-mounted driver with 70V 8W transformer (primary taps at 1.1, 2, 4, 8W) mounted to a 1x2 black subplate with fine perforation steel grille with white powder epoxy finish. The driver shall be 8-inch coaxial with 50W power rating featuring ceramic magnet weight of 20 ozs. (LF) and 2 ozs. (HF), 90 degrees conical dispersion @2kHz octave (-6dB), frequency response of 40Hz-19.4kHz (±6dB), 40Hz-20kHz (±7.3dB) and average sensitivity of 90.6dB measured 1W/1M. The assembly shall include a black steel backbox (0.8 cu.ft.) with acoustic lining, removable dual-knockout wiring compartment cover plate with 1/2 to 3/4-inch combination knockouts, leads exiting through a metal clamp, and restraint tab and hole for code compliance tie-offs. The unit shall be made in the U.S.A. with global components.

LT / LT2 SERIES OVERVIEW

Model No.	Driver	Transformer	Taps	Enclosure	Grille	Volume Control	Listed	Driver Specs (measured half space)		
								Sensitivity*	Frequency Response	Dispersion**
LT-410-72-BB	4" 15W single cone	25V / 70V	.25, .5, 1, 2, 5W	.147 cu.ft.	1 x 2	---	---	90.8 dB	67Hz-16kHz (±6dB) 53Hz-20kHz (±8dB)	170°
LT-810	8" 15W dual cone	---	---	---	1 x 2	---	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT-810-72	8" 15W dual cone	25V / 70V	.25, .5, 1, 2, 5W	---	1 x 2	---	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT-810-BB	8" 15W dual cone	---	---	.147 cu.ft.	1 x 2	---	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT-810-425-BB	8" 15W dual cone	25V	.5, 1, 2, 4W	.147 cu.ft.	1 x 2	---	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT-810-72-BB	8" 15W dual cone	25V / 70V	.25, .5, 1, 2, 5W	.147 cu.ft.	1 x 2	---	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT-810-72-BB-VC	8" 15W dual cone	25V / 70V	.25, .5, 1, 2, 5W	.147 cu.ft.	1 x 2	Knob	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT2-810-BB	8" 15W dual cone	---	---	.147 cu.ft.	2 x 2	---	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT2-810-425-BB	8" 15W dual cone	25V	.5, 1, 2, 4W	.147 cu.ft.	2 x 2	---	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT2-810-72-BB	8" 15W dual cone	25V / 70V	.25, .5, 1, 2, 5W	.147 cu.ft.	2 x 2	---	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT2-810-72-BB-VC	8" 15W dual cone	25V / 70V	.25, .5, 1, 2, 5W	.147 cu.ft.	2 x 2	Knob	---	97.9 dB	54Hz-11.6kHz (±6dB) 50Hz-20kHz (±6.6dB)	95°
LT-830-BB	8" 20W coaxial	---	---	.147 cu.ft.	1 x 2	---	---	97.0 dB	57Hz-14kHz (±6dB) 44Hz-20kHz (±7.6dB)	80°
LT-830-870-BB	8" 20W coaxial	70V	1, 2, 4, 8W	.147 cu.ft.	1 x 2	---	---	97.0 dB	57Hz-14kHz (±6dB) 44Hz-20kHz (±7.6dB)	80°
LT2-830-T870-VB	8" 20W coaxial	70V	1, 2, 4, 8W	.8 cu.ft.	2 x 2	---	---	97.0 dB	57Hz-14kHz (±6dB) 44Hz-20kHz (±7.6dB)	80°
LT2-830-TM16-VB	8" 20W coaxial	70V	4, 8, 16W	.8 cu.ft.	2 x 2	---	---	97.0 dB	57Hz-14kHz (±6dB) 44Hz-20kHz (±7.6dB)	80°
LT-8A-VB	8" 50W coaxial	---	---	.8 cu.ft.	1 x 2	---	UL	90.6 dB	40Hz-19.4kHz (±6dB) 40Hz-20kHz (±7.3dB)	90°
LT-8A-T870-VB	8" 50W coaxial	70V	1.1, 2, 4, 8W	.8 cu.ft.	1 x 2	---	UL	90.6 dB	40Hz-19.4kHz (±6dB) 40Hz-20kHz (±7.3dB)	90°
LT2-8A-VB	8" 50W coaxial	---	---	.8 cu.ft.	2 x 2	---	UL	90.6 dB	40Hz-19.4kHz (±6dB) 40Hz-20kHz (±7.3dB)	90°
LT2-8A-T870-VB	8" 50W coaxial	70V	1.1, 2, 4, 8W	.8 cu.ft.	2 x 2	---	UL	90.6 dB	40Hz-19.4kHz (±6dB) 40Hz-20kHz (±7.3dB)	90°
LT2-8A-TM32-VB	8" 50W coaxial	70V	8, 16, 32W	.8 cu.ft.	2 x 2	---	---	90.6 dB	40Hz-19.4kHz (±6dB) 40Hz-20kHz (±7.3dB)	90°

* Average SPL @ 1W/1M

** Conical @ 2kHz octave (-6dB)

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