

Model No.

LT-830-870-BB

Lay-in Tile Ceiling Loudspeaker

INCLUDES:

- 8-inch 20W coaxial driver
- 70V 8W transformer
- 1x2 grille with subplate
- 0.147-cu.ft. enclosure



LT SERIES SPEAKERS are pro systems made for quick installation in suspended lay-in tile ceilings. This model features an 8-inch 20W coaxial driver, 70V 8W transformer, 1x2 grille with subplate and 0.147-cu.ft. backbox.. The patented* 1x2 assembly features an integral T-bar support that replaces half of a 2x2 or one-fourth of a 2x4 ceiling tile.

FEATURES

PERFORMANCE: This model is ideal for applications providing commercial paging and/or background music.

DRIVER (CT830A): 8-inch 20W coaxial driver with 3-inch tweeter that provides wide dispersion in the high frequency range to enhance intelligibility in the area between speakers. Outstanding choice for quality paging, public address, and background music applications demanding accurate voice and music reproduction.

- Precision ground, highly efficient ceramic magnets (12 oz. LF, 2.1 oz. HF) and permanently aligned voice coils to achieve outstanding smoothness and intelligibility
- Driver weight: 2.4 lbs.
- Driver depth: 3.2 in.

TRANSFORMER: Factory-wired 70V transformer with primary taps at 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 (8XD4): Certified U.S. steel enclosure with black powder epoxy finish.

- Volume: 0.147 cu.ft.
- Polyurethane foam disc

INSTALLATION:

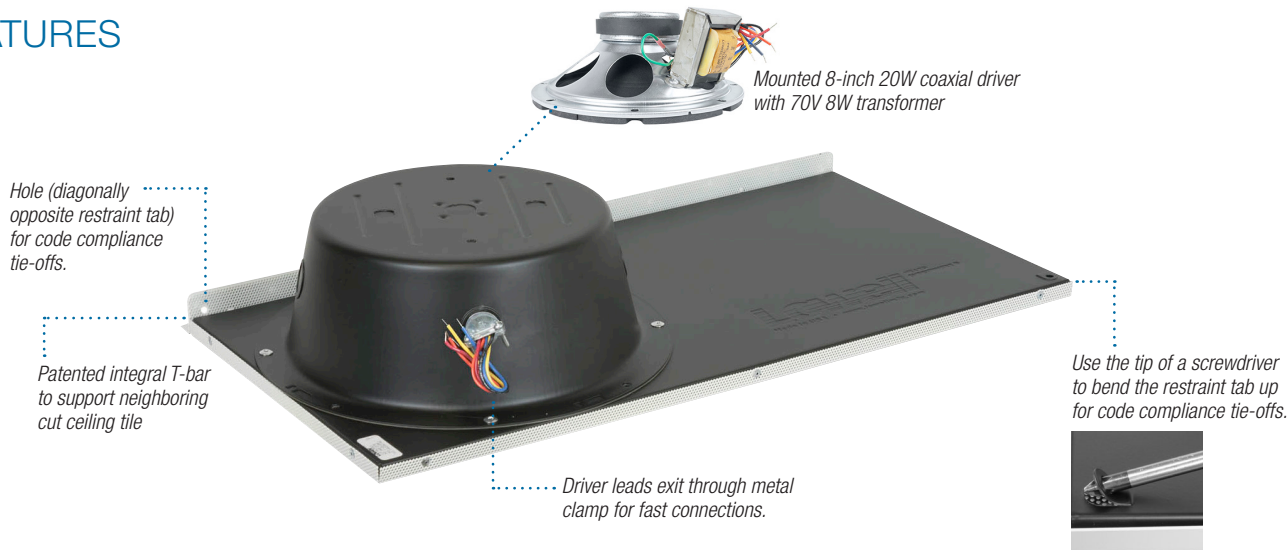
- Assembly Dimensions: 23.75-in.L x 12.92-in.W x 5-in.H
- Patented* T-bar Support: Integral 2-foot T-bar attached to grille assembly supports the neighboring cut ceiling tile.
- Restraint Tab: The assembly features a restraint tab in one corner and a hole in the diagonally-opposite corner for code compliance tie-offs.
- 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:

- Made in the U.S.A. with certified U.S. steel and global components.

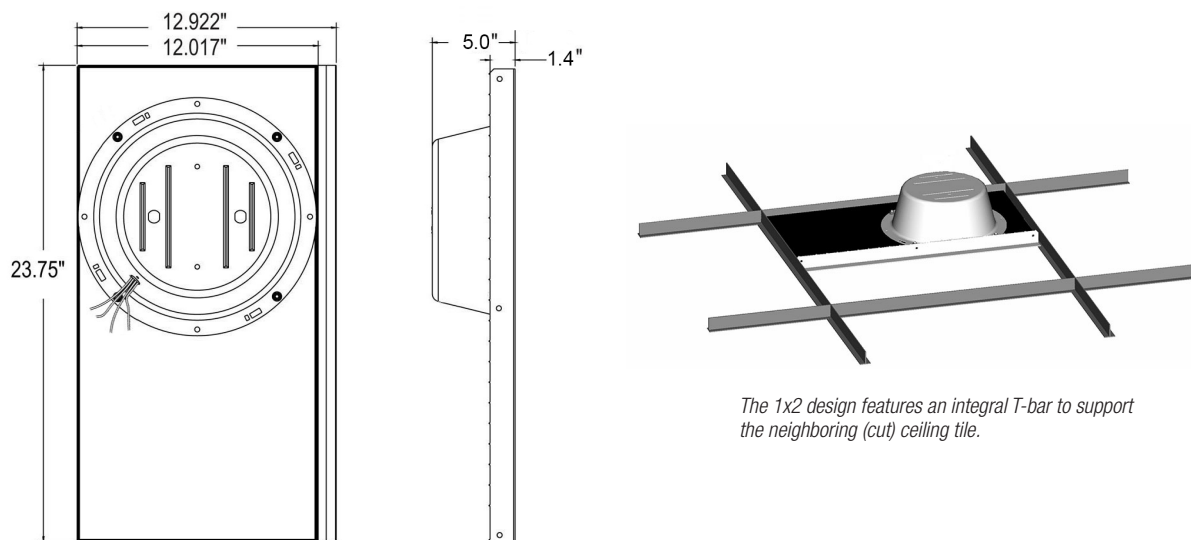
*U.S. patents 7,120,269; D467,579; 7,643,647

FEATURES



TECHNICAL DRAWINGS

Dimensions are provided in inches.



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
CT830A	8 in.	20W	coaxial	12 oz.	57Hz-14kHz (±6dB) 44Hz-20kHz (±7.6dB)	80 degrees conical	8 ohms	1 in.	97.0dB avg.	110.0dB	3.2 in.	2.4 lbs.

*Calculated value 1M @ driver power rating. See spec sheet for driver CT830A 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 @ 1W/1M) + 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 lay-in tile ceiling (non-regular, flush) shall be Lowell Model No. LT-830-870-BB. 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 transformer (primary taps at 1, 2, 4 and 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 20W power rating featuring ceramic magnet weight of 12 ozs. (LF) and 2.1 ozs. (HF), 80 degrees conical dispersion @2kHz octave (-6dB), frequency response of 57Hz–14kHz (±6dB), 44Hz–20kHz (±7.6dB) and average sensitivity of 97.0dB measured 1W/1M. The assembly shall include a black steel backbox (0.147-cu.ft.) with foam disc, 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-VR	8" 50W coaxial	70V	1.1, 2, 4, 8W	.8 cu.ft.	2 x 2	---	---	90.6 dB	40Hz–19.4kHz (±6dB) 40Hz–20kHz (±7.3dB)	90°

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