

Model No.

# 8A50-T870

Coaxial Driver with transformer

INCLUDES:

- 8-inch 50W coaxial driver
- 70V 8W transformer



THE 8A50 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. This model includes a wired 70V transformer.

## FEATURES

**DRIVER:** 20oz. LF magnet coupled with 1.4 inch copper voice coil drive a polypropylene cone with half-roll rubber surround for long cone travel and good edge damping. The post-mounted tweeter is a 1-inch balanced-drive dome protected by Ferrofluid and a first-order high-pass filter. Stamped 20-gauge steel with black enamel finish and zinc-plated back-plate.

**DRIVER POWER RATING:** 50W RMS

**DISPERSION ANGLE:** 90 degrees conical @2kHz octave (-6dB). The driver's capacity to deliver a wide angle of sound distribution over a large area with uniform response and voice clarity ensures complete coverage with minimum units.

**TRANSFORMER:** Mounted and wired 70V transformer has primary taps at 1, 2, 4, and 8W.

**ASSEMBLY FREQUENCY RESPONSE:** 40Hz–19.4kHz ( $\pm 6$ dB); 40Hz–20kHz ( $\pm 7.1$ dB)

**ASSEMBLY SENSITIVITY:** 92.0dB average SPL@1W/1M; 101.0 maximum SPL calculated based on 8W maximum transformer power tap and measured sensitivity.

**COUNTRY OF ORIGIN:** Driver—China; Transformer—U.S. or Taiwan. Assembled in U.S.A.

## A&E SPECIFICATIONS:

The 8-inch driver with mounted transformer shall be Lowell Model No. 8A50-T870 which shall be of the coaxial type having electrically independent high and low frequency transducers. The low frequency section shall have an 8-inch diameter polypropylene cone and the high frequency section shall have a tweeter with a 1-inch balanced-drive dome. A built-in electrical crossover network shall be employed to accomplish the proper frequency division between the two drivers. Crossover frequency shall be at 4000Hz with a first order high-pass filter. Power rating shall be 50 watts RMS. The low frequency voice coil shall have a diameter of 1.4-inch and operate in a magnetic field derived from a ferrite (ceramic) magnet with nominal weight of 3.5 lbs. The high frequency voice coil shall have 0.53-inch diameter and operate in a magnetic field derived from a ferrite (ceramic) magnet with 2 oz. nominal weight. Voice coil impedance shall be 8 ohms. The driver shall have a round, structurally reinforced stamped 20-gauge steel frame with 8.08-inch overall diameter and eight obround holes equally spaced at 45 degrees on 7.625-inch diameter mounting bolt circle. External metal parts shall be finished in black enamel coating or zinc plating to resist rust and corrosion. The mounted transformer shall be 70V with primary taps at 1, 2, 4, and 8W. The assembly shall be capable of producing a uniform audible frequency response over the range of 40Hz-19.4kHz ( $\pm 6$ dB), 40Hz-20kHz ( $\pm 7.1$ dB) with a dispersion angle of 90 degrees conical @2000Hz-6dB. Average sensitivity shall measure 92.0dB SPL at 1W/1M. Overall depth shall not exceed 6.25-in.

## 8A50 SERIES OVERVIEW

Model No.	Driver	Transformer	Transformer Primary Taps	Mounting Depth*	Outside Diameter	Net Weight	Sensitivity**	System Specs Frequency Response	Dispersion***
8A50	8" 50W coaxial	---	---	3.85"	8.02"	3.5 lbs.	89.6 dB	50Hz–20kHz (±7.5dB)	90°
8A50-T870	8" 50W coaxial	70V	1, 2, 4, 8W	6.25"	8.02"	4.4 lbs.	92.0 dB	40Hz–19.4kHz (±6dB)	90°
8A50-T870-S	8" 50W coaxial	70V	1, 2, 4, 8W	4.10"	8.02"	4.4 lbs.	90.6 dB	40Hz–19.0kHz (±6dB)	90°
8A50-TM1670	8" 50W coaxial	70V	4, 8, 16W	6.25"	8.02"	5.5 lbs.	91.8 dB	40Hz–17.7kHz (±6dB)	90°
8A50-TM1670-S	8" 50W coaxial	70V	4, 8, 16W	4.10"	8.02"	5.5 lbs.	90.8 dB	40Hz–17.4kHz (±6dB)	90°
8A50-TS3270	8" 50W coaxial	70V	8, 16, 32W	7.80"	8.02"	8.2 lbs.	91.1 dB	40Hz–17.5kHz (±6dB)	90°

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\* Minimum depth required to be rear-mounted to a grille in an enclosure.

\*\* Sensitivity: Average SPL (measured 2.83V @ 1M)

\*\*\* Dispersion Angle: Conical @ 2kHz octave (–6dB)

**Note on Speaker Spacing:** Conical dispersion measurements are provided for comparison with other speakers. To determine correct speaker spacing, see the technical paper "Distributed System Speaker Spacing for the Integrator" ([www.Lowellmfg.com](http://www.Lowellmfg.com)) which explains the difference between conical and linear dispersion and the measurements to use for best results. For quick calculations, a calculator for speaker spacing is also available online under Resources – Interactive Tools.

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