

Model No.

# CT830A-T870

Coaxial Driver with Transformer



INCLUDES:

- 8-inch 20W coaxial driver
- 70V 8W transformer

THE CT830A HIGH-PERFORMANCE DRIVER includes a mounted transformer for quality paging, public address, and background music applications that demand accurate voice/music reproduction.

## FEATURES:

**DESCRIPTION:** High frequency speaker with first order high pass filter, ceramic magnets (12 oz. LF, 2.1 oz. HF) and permanently aligned voice coils (1-in. LF; 0.563-in. HF). 20-gauge stamped steel frame with zinc plated finish.

**POWER RATING:** 20W RMS

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

**FREQUENCY RESPONSE:** 53Hz–14.3kHz ( $\pm 6$ dB), 44Hz–20kHz ( $\pm 7.1$ dB).

**DISPERSION ANGLE:** 80 degrees conical @2kHz octave (-6dB).

**SENSITIVITY:** Average SPL = 97.1dB (@1W/1M). Maximum SPL = 106.1dB (calculated based on 8W max. transformer power tap and measured sensitivity).

**MOUNTING DEPTH:** 3.30 inches

**NET WEIGHT:** 3.3 lbs.

**COUNTRY OF ORIGIN:** Assembled in the U.S.A. with global components.

## A&E SPECIFICATIONS:

The 8-inch speaker driver with mounted transformer shall be Lowell Model CT830A-T870, which shall be of the coaxial type having electrically independent high and low frequency transducers and power rating of 20 watts RMS. The low frequency section shall have an 8-inch diameter cone; the high frequency section shall have a 3-inch diameter cone. A built-in electrical crossover network shall be employed to accomplish proper frequency selection between the two drivers. Crossover frequency shall be at 4000Hz. The low frequency voice coil shall have a 1-inch diameter and operate in a magnetic field derived from a strontium ferrite (ceramic) magnet with nominal weight of 12 oz. The high frequency voice coil shall have a 0.57-inch diameter and operate in a magnetic field derived from a strontium ferrite (ceramic) magnet with nominal weight of 2.1 oz. Voice coil impedance shall be 8ohms. The speaker shall have a structurally reinforced, stamped 20-ga. steel frame with 8.062-inch overall diameter and eight obround holes equally spaced at 45 degrees on a 7.625-inch diameter mounting bolt circle. External metal parts shall be zinc-plated to resist rust and corrosion. The speaker shall have a mounted transformer with primary taps at 1, 2, 4, 8W @70V. The assembly shall be capable of producing a uniform audible frequency response over the range 53Hz-14.3kHz ( $\pm 6$ dB); 44Hz-20kHz ( $\pm 7.1$ dB) with dispersion angle of 80 degrees @2000Hz (-6dB). Average sensitivity shall measure 97.1dB SPL (at 1W/1M). Assembly mounting depth shall not exceed 3.3 inches.

## CT830A SERIES OVERVIEW

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Model No.	Driver	Transformer	Transformer Primary Taps	Mounting Depth*	Outside Diameter	Net Weight	Sensitivity**	System Specs Frequency Response	Dispersion Angle***
CT830A	8" 20W coaxial	---	---	3.2"	8.062"	2.4 lbs.	97.0 dB	57Hz-14kHz (±6dB) 44Hz-20kHz (±7.6dB)	80°
CT830A-T72	8" 20W coaxial	25V/70V	.25, .5, 1, 2, 5W	3.2"	8.062"	2.8 lbs.	97.4 dB	57Hz-13.5kHz (±6dB) 44Hz-20kHz (±8.4dB)	80°
CT830A-T470	8" 20W coaxial	70V	.5, 1, 2, 4W	3.2"	8.062"	3.0 lbs.	96.7 dB	57Hz-13.3kHz (±6dB) 44Hz-20kHz (±8.7dB)	80°
CT830A-T870	8" 20W coaxial	70V	1, 2, 4, 8W	3.3"	8.062"	3.3 lbs.	97.1 dB	53Hz-14.3kHz (±6dB) 44Hz-20kHz (±7.1dB)	80°

\* Mounting Depth: Minimum depth required for assembly to be rear-mounted to 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.