



Quality Features

- Reliable 12W 8" (5oz.) speaker for a value price.
- Dual cone 8-inch driver provides clear and accurate reproduction of music and voice communications.
- Available with a factory-wired transformer for fast installation using color-coded leads.
- Compatible with Lowell's extensive selection of architectural grilles, backboxes, and surface baffles (see page 4).

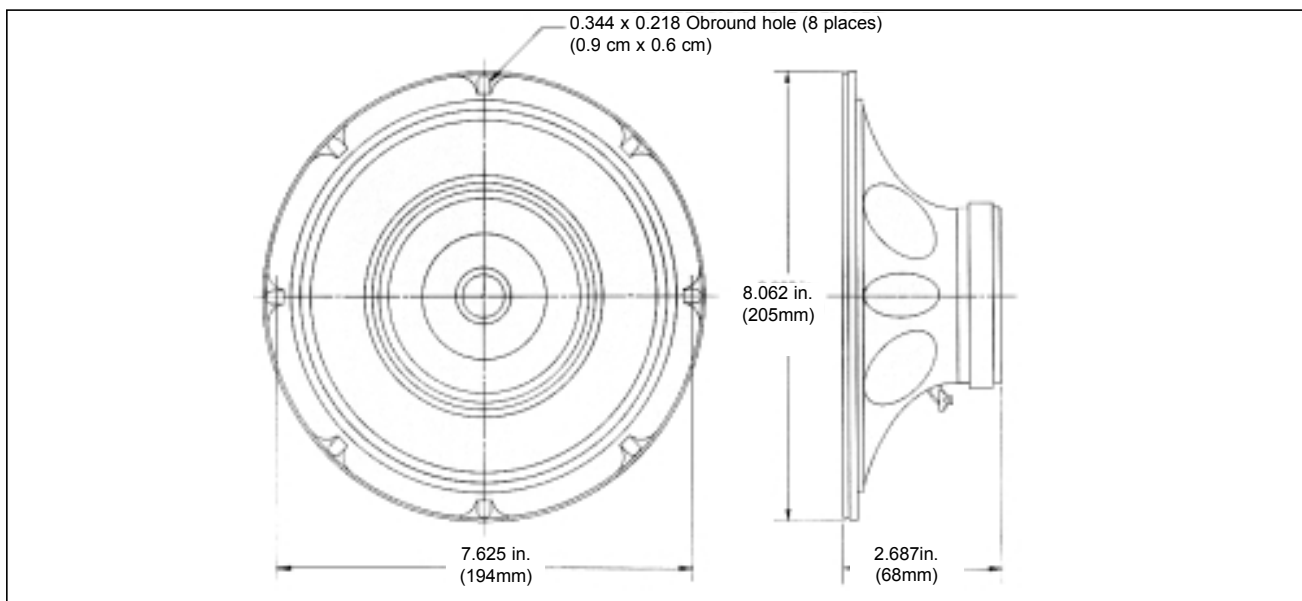
Description

Lowell Model 805 is a commercial industry standard 8" full range, dual cone speaker with a 1" voice coil and a 5 oz magnet. This workhorse of the industry provides good value in almost any basic paging or background music system. Standard features include a plated steel basket and copper voice coil. To meet a variety of applications, the speaker is available with a selection of factory wired transformers and will fit all standard 8" ceiling grilles and backboxes. Lowell Model 805 is often specified for reliable paging and background music performance in commercial, industrial, and institutional applications including offices, public buildings, schools, and medical facilities.

The dual cone loudspeaker assembly employs a highly efficient magnetic structure energized by a 5oz ceramic magnet. The use of a hard fibre whizzer cone mechanically coupled to the 1" voice coil provides extended high frequency response with fine clarity, while the molded fibre cone enhances mid and low range frequency performance.

The loudspeaker frame is stamped 20 gauge steel with a zinc plated finish to prevent corrosion. The frame includes pre-punched holes for transformer mounting. See factory wired speaker/transformer assemblies on page 2.

Model 805 is manufactured in the United States of America and meets or exceeds all applicable EIA standards. Lowell also manufactures a complete selection of architectural ceiling grilles, acoustic, protective, and special application backboxes and baffles to facilitate speaker installation wherever audio communications are desired.



805 Driver Specifications

DRIVER TYPE			
Dual Cone	8 inch (203mm)		
PERFORMANCE			
Power Handling, Nominal	12 watts RMS (nominal) measured per EIA Standard RS-426A		
Sensitivity	98dB SPL (peak), 93dB SPL (avg) measured 2.83V @ 1m		
Impedance	8 ohms (nominal), 8.6 ohms @235Hz (minimum)		
Frequency Response	55Hz-18kHz (nominal), 100Hz-12kHz (+6dB)		
Dispersion Angle	120° @ 2000Hz octave (-6dB)		
PHYSICAL - WOOFER			
Magnet Weight, Material	5oz. (134g), strontium ferrite ceramic		
Voice Coil Diameter, Material	1 inch (26mm), copper wire		
Cone Material	Dual cone paper with self edge surround		
Terminals	Quick disconnect type - spade lugs		
MECHANICAL			
Basket	20 gauge stamped steel with zinc plating		
Outside Diameter	8.062 inch (205mm)		
Mounting Bolt Circle	7.625 inch (194mm) with 8 obround holes equally spaced at 45 degrees.		
Cutout Diameter	7.15 inch (182mm)		
Mounting Depth	2.68 inch (68mm)		
Net Weight	1.3 lbs. (0.58kg)		
THIELE-SMALL PARAMETERS			
Pe.....12W	Qts.....1.9	BL.....3.9Tm	Sd.....33.2 in ² , 214cm ²
Fs.....105Hz	Qes.....2.9	Efficiency, η.....0.68%	Mms.....8.6g
Xmax.....0.08 in., 2mm	Qms.....6.2	Vas.....17.3 liters, 1056 cu.in	Cms.....0.27mm/N
Resistance.....7.8Ω			

805 Factory-Wired Loudspeaker / Transformer Assemblies

Model	Mounted Xfmr Model	Mounted Depth*	Weight Driver/xfmr	Xfmr Power Rating	Xfmr Primary Voltage	Xfmr Primary Taps	Xfmr Response	Xfmr Insertion Loss
805-T25	TLM25	2.68"	1.7 lb	4 Watts	25V	.25, .5, 1, 2, 4W	100Hz - 10kHz ±1dB	1dB
805-T70	TLM70	2.68"	1.7 lb	4 Watts	70V	.25, .5, 1, 2, 4W	100Hz - 10kHz ±1dB	1dB
805-T72	TLM72	2.68"	1.7 lb	4 Watts	25/70V	.5, 1, 2, 4W	100Hz - 10kHz ±1dB	1dB
805-T425	TLM425	2.68"	1.8 lb	4 Watts	25V	.5, 1, 2, 4W	60Hz - 15kHz ±1dB	0.8dB
805-T470	TLM470	2.68"	1.8 lb	4 Watts	70V	.5, 1, 2, 4W	60Hz - 15kHz ±1dB	0.8dB
805-T825	TLM825	2.81"	2.2 lb	8 Watts	25V	1, 2, 4, 8W	50Hz - 15kHz ±1dB	0.8dB
805-T870	TLM870	2.81"	2.2 lb	8 Watts	70V	1, 2, 4, 8W	50Hz - 15kHz ±1dB	0.8dB

* Minimum depth required for the speaker transformer assembly to be rear mounted in an enclosure.

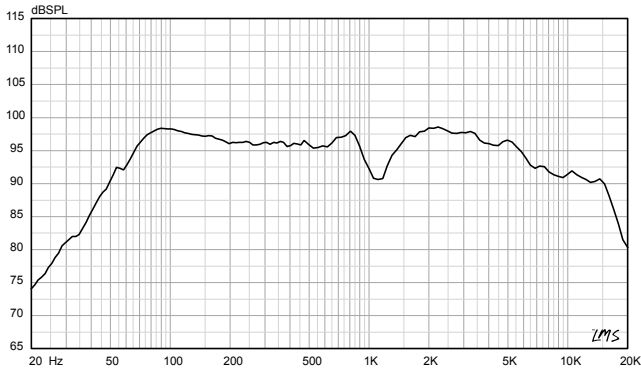


Scope of Model 805 performance and power tests

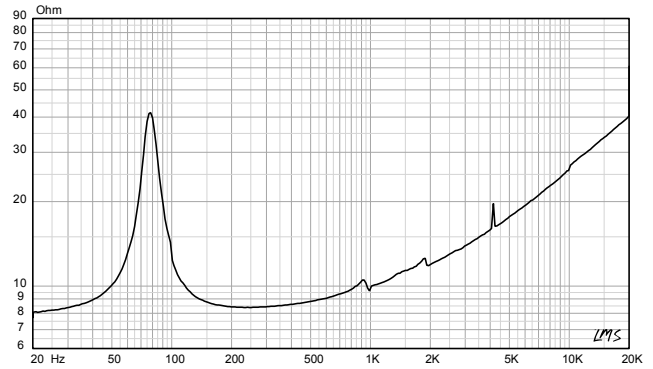
Lowell Loudspeaker tests are performed to provide specifiers and contractors with accurate specifications that reflect the true performance of production stock. Tests are conducted in the Lowell acoustical testing facilities on randomly selected production speakers. Testing equipment includes the GoldLine TEF-20 analyzer and a LinearX LMS measurement system. The power handling capability is based on EIA Standard RS-426A. The EIA test input signal is a random noise signal containing many frequencies simultaneously,

just like a real voice or instrumental program. This signal requires the speaker being tested to be able to endure a "long-term average" or "continuous" level as well as instantaneous peaks that are a full four times above the continuous power. The long term average level stresses the speaker thermally (heat). The instantaneous peaks test mechanical reliability (cone excursion and lead wire flexing). The long term average level is applied for eight hours, adding another measure of reliability.

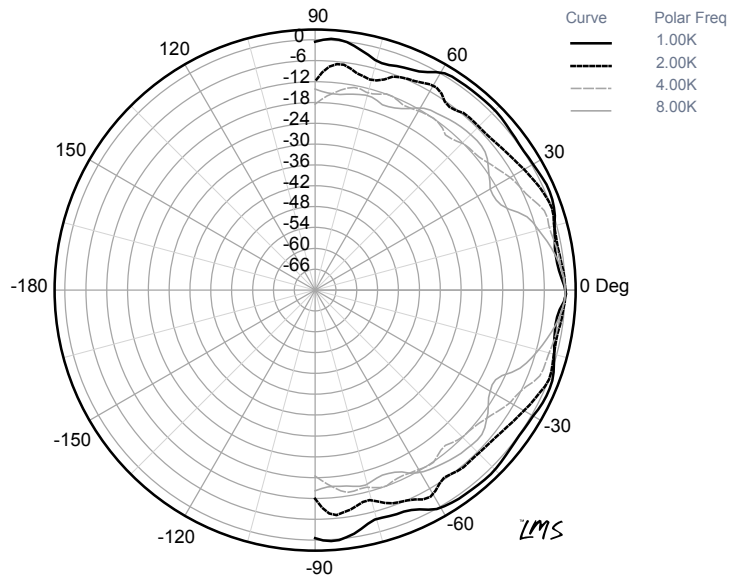
SPL vs. Frequency 1W / 1M



Impedance



Ratio vs. Angle



A & E Specifications

The dual cone 8 inch loudspeaker shall be **Lowell Model 805** (formerly Model 8C51W). Loudspeaker shall be furnished and installed at each designated location on the architectural plans and/or as specified herein. The loudspeaker shall be of the permanent magnet type having a seamless molded fibre cone with a hard fibre whizzer cone mechanically coupled to the voice coil for extended high frequency response.

The loudspeaker shall be capable of producing a uniform audible frequency response over the range of 55Hz-18kHz nominal, 100Hz-12kHz+6dB with a demonstrative dispersion angle of 120 degrees @ 2000Hz-6dB. The average sensitivity shall measure 93dB (SPL at 1W/1M). Rated power handling capacity shall be 12 watts RMS. The voice coil shall have a diameter of 1 inch and shall operate in a magnetic field derived from a strontium ferrite (ceramic) magnet having a nominal weight of 5oz. The voice coil impedance shall be 8 ohms.

The loudspeaker shall have a round, structurally reinforced stamped 20 gauge steel frame to maintain precise mechanical alignment and shall provide facilities for mounting a transformer.

The loudspeaker shall have an overall diameter of 8.062 inches with eight obround holes equally spaced at 45 degrees on a 7.625 inch diameter mounting bolt circle. The overall depth shall not exceed 2.688 inches (not including transformer). All external metal parts shall be zinc plated to resist rust and corrosion. The loudspeaker specified herein shall be Model 805 as supplied by Lowell Manufacturing Company, Pacific, Missouri, 63069 U.S.A.

For 25 or 70.7 volt distributed systems:

The Model 805 dual cone loudspeaker shall be equipped with Lowell Model _____ transformer, factory mounted and wired. The transformer's primary voltage shall be _____ (25V, 70.7V, 25/70V) and shall provide selectable power taps of _____ watts. The transformer frequency response shall be from _____ to _____ Hz ± _____ dB, with a maximum insertion loss of _____ dB. The loudspeaker and transformer assembly specified herein shall be referred to as the Lowell Model 805-____ (T25, T70, T72, T425, T470, T825, T870).

Companion Backboxes and Grilles (partial selection)

To meet aesthetic and performance requirements, 805 drivers may be matched with Lowell's attractive architectural grilles and protective backboxes in depths of 4" to 10" or mounted into Lowell's surface baffles for retrofit applications.



CP810
CP87 / CP84 / CP85



XCP810
XCP87 / XCP84 / XCP85



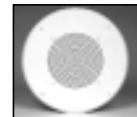
DX108

Recessed Standard & Volume Backboxes - Mix & match with grilles on right.

CP84	BB 8in rec CRS 11.938Dia x 4.063D
CP84-NK	BB 8in rec CRS 11.938Dia x 4.063D noKO
CP85	BB 8in rec CRS 11.938Dia x 5.063D
CP87	BB 8in rec CRS bat 11.938Dia x 6.687D
CP810	BB 8in rec CRS bat 11.938Dia x 10.063D
XCP84	BB 8in rec CRS tm 10.063Dia x 4.063D
XCP84-NK	BB 8in rec CRS tm 10.063Dia x 4.063D noKO
XCP84-S	BB 8in rec CRS tm 10.063Dia x 4.063D straps
XCP85	BB 8in rec CRS tm 10.063Dia x 5.063D
XCP85-S	BB 8in rec CRS tm 10.063Dia x 5.063D straps
XCP87	BB 8in rec CRS tm bat 10.063Dia x 6.687D
XCP87-S	BB 8in rec CRS tm bat 10.063Dia x 6.687D straps
XCP810	BB 8in rec CRS tm bat 10.063Dia x 10.063D
XCP810-S	BB 8in rec CRS tm bat 10.063Dia x 10.063D straps

Recessed Acoustic Backboxes - Mix & match with grilles on right.

DX108	BB Acoustic 8in 1cuft 15Dia x 10.125D
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A8-AW



CS-8H



LK-8



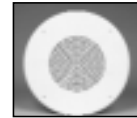
LO8-P



OM8-P



RS8-A



WB-8



WB-8H

Surface Slope Front Wall Baffles

CEK-8M	Baf surf 8in CRS slope 13.75H x 10.438W WH
SL8-W	Baf surf 8in wood laminate slope 10.5H x 9.438W BK

Surface Ceiling or Wall Baffles

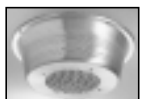
LCS-8	Baf surf 8in alum 10.75Dia x 4.25Proj AL
WL8-A	Baf surf 8in alum 14.75Dia x 5 AL

Surface Bi-Directional Baffles

BSG-8	Baf bi-dir 8in CRS 11.563Sq x 4Proj WH
LCB-8	Baf bi-dir 8in alum 10.5Dia x 4.75D x 12.5Proj AL



LCS-8



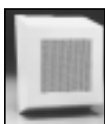
WL8-A



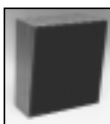
BSG-8



LCB-8



CEK-8M



SL8-W

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