

Model No.

OS-150-TW

Two-Way Loudspeaker
(indoor or protected outdoor installation)

INCLUDES:

- 8-inch 150W driver
- 8 ohm / transformer selector switch
- Molded plastic enclosure
- Aluminum grille
- U-bracket



THIS LOUDSPEAKER is ideal for applications that require pattern control in indoor or protected (covered) outdoor installations. It features an 8-inch 150W two-way driver, 8 ohm transformer selector switch (25V, 70V, 100V), molded plastic enclosure, aluminum grille and U-bracket.

FEATURES

PERFORMANCE: This model is ideal for applications that require pattern control in indoor or protected outdoor installations.

DRIVER: Horn loaded compression driver controls high frequency dispersion for longer throws or systems that use live microphones.

- Woofer: 8-inch polymer-coated paper composite cone with cloth surround
- HF compression driver with titanium diaphragm, 1-inch voice coil and ferrite magnet.
- 150W power rating with 80° H x 80° V conical dispersion, frequency response of 65Hz-20kHz (±6dB) and average sensitivity of 91.0dB measured 1W/1M.

8OHM / TRANSFORMER SELECTOR SWITCH: Back of speaker has 8 ohm / transformer selector switch. The screwdriver-adjustable switch allows direct 8 ohm or distributed 25V, 70V or 100V tap positions.

- Tap positions for 25V line: 0.48, 0.94, 1.9, 3.8, or 7.5W
- Tap positions for 70V line: 3.8, 7.5, 15, 30, or 60W
- Tap positions for 100V line: 7.5, 15, 30, or 60W

ENCLOSURE: Talc-impregnated molded polypropylene enclosure is weather and UV-resistant. White.

- The two screw terminals are protected by a weather-resistant terminal cover and rubber grommet, which can be removed if larger wire is used. Includes a knockout for 1/2-inch conduit connections.

- The 1/4-20 threaded insert mounting bolt pattern on the rear of the enclosure matches load-rated commercial mounting brackets made elsewhere (see Accessories).

GRILLE: Fine mesh powder-coated aluminum grille. White.

U-BRACKET:

- Factory-installed bracket is weather-resistant, plated powder-coated steel. White.
- Bracket can be installed vertically or horizontally
- 90 degree rotation

ACCESSORIES:

- The mounting bolt pattern on the enclosure matches load-rated mounting brackets made by others, such as Adaptive Technologies Group or Omnimount. Verify mounting bolt pattern alignment and weight load rating with bracket manufacturer before using it with this speaker.

FEATURES



VERSATILE U-BRACKET INSTALLATION: The factory-mounted U-bracket has mounting slots to accommodate vertical or horizontal installations.



TERMINAL COVER: Incoming wire enters through the weather-resistant terminal cover and is protected by a rubber grommet. Maximum recommended wire size is 14AWG stranded. *Note: The grommet can be removed if larger wire sizes are used.*



PHOENIX-TYPE CONNECTOR: Wiring Connects to the four-conductor removable Phoenix-type connector. Parallel dual terminals (+/-) are provided to terminate incoming and outgoing wiring.

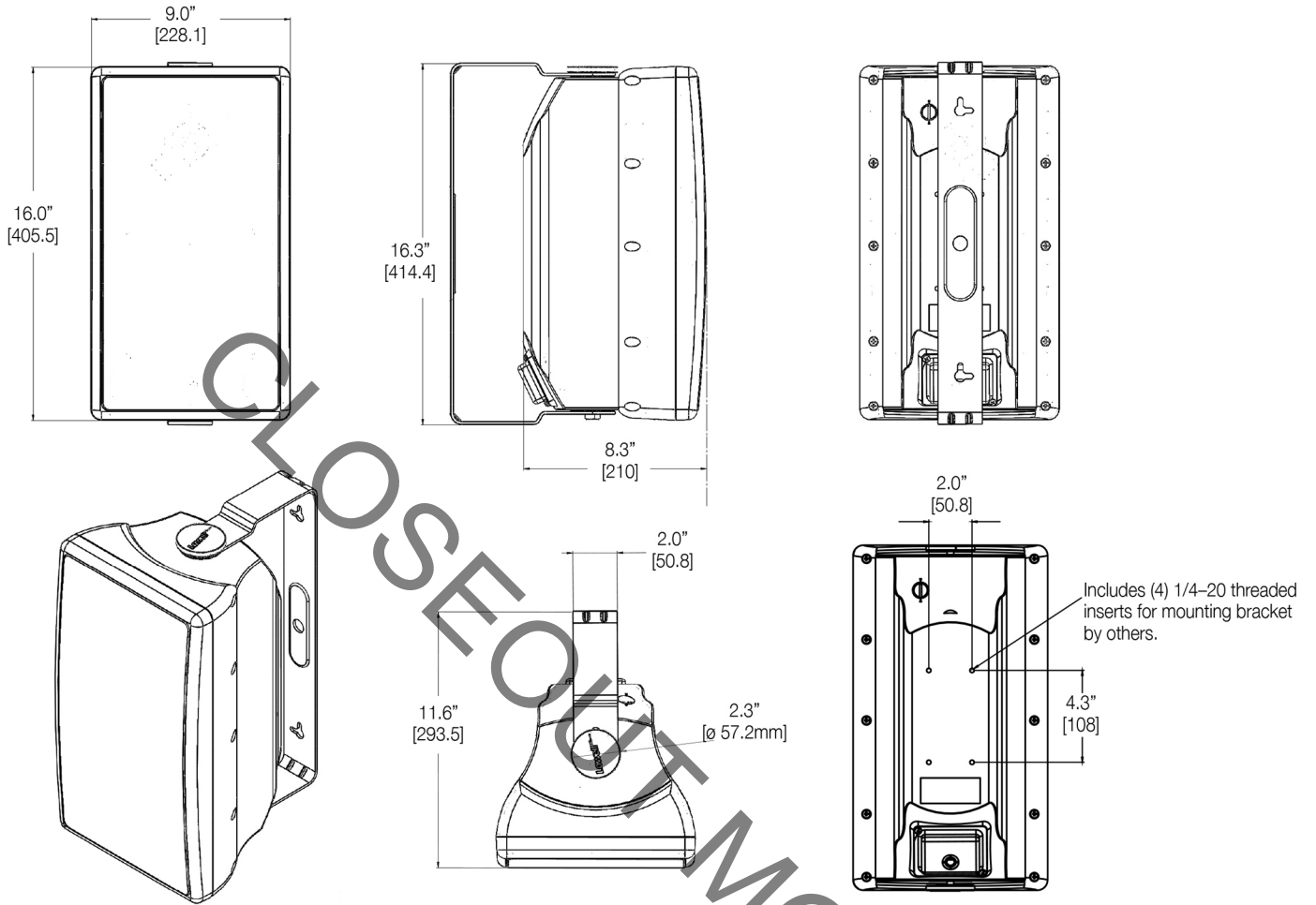


8 OHM / TRANSFORMER SELECTOR SWITCH: When the selector switch is in the 8 ohm position, the transformer is disconnected internally and the speaker power rating is 150W. When the switch is in position A-E, speaker power is determined by the driving voltage as shown in the table on the rear of the speaker.

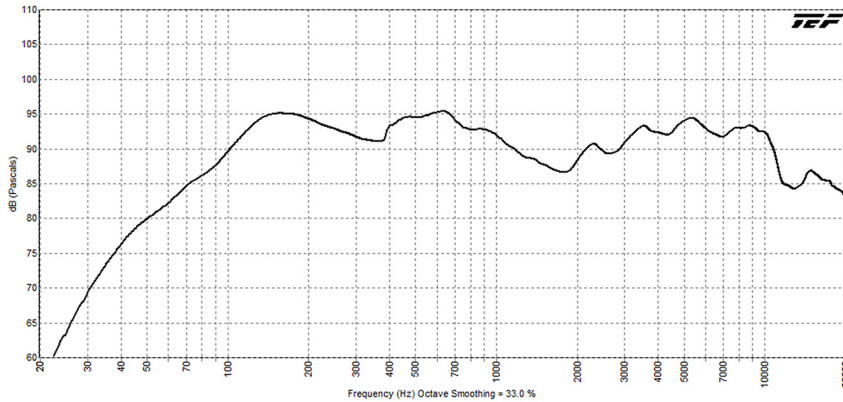
Tap	25V line	70V line	100V line
A	7.5W	60W	Do Not Use
B	3.8W	30W	60W
C	1.9W	15W	30W
D	0.94W	7.5W	15W
E	0.48	3.8	7.5

TECHNICAL DRAWINGS

Dimensions are provided in inches [and mm].



SPL VS. FREQUENCY (1W/1M)



TECHNICAL DATA

Dimensions without bracket 16-in. x 9-in. x 8.3-in.D [414mm x 229mm x 211mm]

Dimensions with bracket 16.3-in. x 9-in. x 10-in.D [414mm x 229mm x 254mm]

Net Weight 18 lbs. [8.165kg]

Power Handling. 150 watts RMS measured per EIA Standard RS-426B at 8 ohms

Sensitivity 91.0dB SPL (avg) measured 1 Watt at 1 Meter
112.8dB SPL (max) calculated 150 Watts at 1 Meter

Frequency Response 65Hz–20kHz (±6dB)

Impedance 8 ohms (nominal), 8.6ohms @ 274Hz (minimum)

Dispersion. 80° H x 80° V conical dispersion @2000Hz octave (-6dB). This measurement is used for comparison with other speakers. See the white paper "Distributed System Speaker Spacing for the Integrator" for help with speaker spacing (available online at www.lowellmfg.com).

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 speaker for indoor or protected outdoor use shall be Lowell model OS-150-TW, which shall have a horn loaded compression driver, 150W power rating, and a screwdriver-adjustable switch for direct 8 ohm or distributed 25V, 70V or 100V application. It shall have a frequency response of 65Hz–20kHz (±6dB) and average sensitivity of 91.0 dB measured 1W/1M. The housing shall be molded plastic with mesh aluminum grille and white finish. The assembly shall include an adjustable U-bracket for vertical or horizontal installation. The assembly shall weigh 18 lbs. [8.165 kg] and measure 16.3 in.H x 9 in.W x 10 in.D [414 x 229 x 254mm] with the included U-bracket. Housing shall include 1/4"–20 threaded inserts to accept optional brackets (Adaptive Technologies MM-016-BT or Omnimount 25.0W), which may increase overall depth.

OS SERIES OVERVIEW

Model No.	Driver	Selectable Transformer	Enclosure	Grille	Color	Application	Driver Specs (measured half space)		
							Sensitivity*	Frequency Response	Dispersion**
OS-50-TB	5-1/4" 50W two-way	8ohm or 25V, 70V, 100V	plastic	aluminum	black	wide dispersion voice/music	85.4 dB	102Hz–16.5kHz (±6dB)	115°
OS-50-TW	5-1/4" 50W two-way	8ohm or 25V, 70V, 100V	plastic	aluminum	white	wide dispersion voice/music	85.4 dB	102Hz–16.5kHz (±6dB)	115°
OS-100-TB	6-1/2" 100W two-way	8ohm or 25V, 70V, 100V	plastic	aluminum	black	wide dispersion quality music	87.8 dB	97Hz–20kHz (±6dB)	120°
OS-100-TW	6-1/2" 100W two-way	8ohm or 25V, 70V, 100V	plastic	aluminum	white	wide dispersion quality music	87.8 dB	97Hz–20kHz (±6dB)	120°
OS-150-TB	8" 150W two-way	8ohm or 25V, 70V, 100V	plastic	aluminum	black	pattern control longer throw/live mic	91.0 dB	65Hz–20kHz (±6dB)	80°
OS-150-TW	8" 150W two-way	8ohm or 25V, 70V, 100V	plastic	aluminum	white	pattern control longer throw/live mic	91.0 dB	65Hz–20kHz (±6dB)	80°

THIS SPEC

* Average Sensitivity: SPL @ 1W/1M

** Equal horizontal and vertical conical dispersion @ 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" (free download at www.Lowellmfg.com) which explains the difference between conical and linear dispersion and the measurements to use for best results. For quick calculations, a speaker spacing calculator is also available online under [Resources / Interactive Tools](#).