



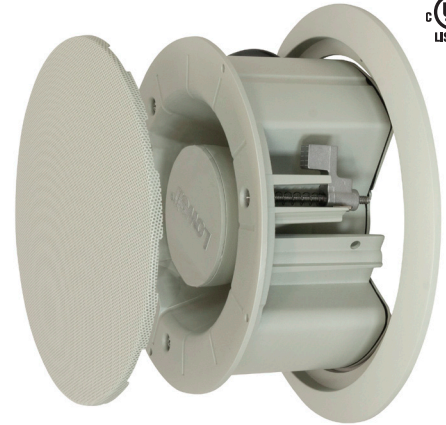
Model No.

LUH-15TA

Unihorn® for General Signaling

SPEAKER INCLUDES:

- 15W compression driver
- 25V/70V/100V transformer
- Self-contained cast aluminum housing
- Press-fit grille and trim ring



Unihorn Model LUH-15TA can be used with or without the (included) press-fit grille and trim ring.

Unique ready-to-install re-entrant horn with weather-resistant housing is engineered for versatile labor-saving installation in brick, concrete block, plaster, drywall, or acoustic tile (indoors or outdoors, recessed or surface-mount). For paging and general voice communications (25V, 70V, 100V or 8ohm). Ideal for school intercom systems (25V). Provides clear intelligibility with high SPL output over the extended vocal range.

FEATURES

DRIVER: 15W compression driver

TRANSFORMER: 25V/70V/100V transformer with screw-driver-adjustable tap selector switch in front and rear (8 ohm bypass)

GRILLE: Fine perforation press-fit aluminum grille fits snugly for a hardware-free appearance, while helping to protect the front of the horn from nesting birds and insects.

ENCLOSURE: Self-contained cast aluminum housing with moisture-seal cover

TRIM RING: Contoured aluminum trim ring

FINISH: Network Grey powder coat finish.

COMPLIANCE: UL1480A General Signaling (USA); UL2043 suitability for use in return air plenum space (USA); CSA C22.2 No. 205-12 General Signaling (Canada)

INSTALLATION:

- Simple two-wire hookup to the pigtail (in UL approved junction box) or through the waterproof gland-type cable fitting. See install sheet.
- Reversible mounting dogs promote quick installation. (Do not over-tighten)
- Horn model LUH-15TA is engineered for versatile installation:
 - Indoors or outdoors
 - In brick, concrete block, plaster, drywall or acoustic tile
 - Surface-mount or recessed (in 4 inch deep space)
 - Install with or without press-fit grille and trim ring (included)
 - Retrofit — will accept a standard E.I.A. grille for an 8 in. speaker and the UL Listing will remain valid.
 - Vandal-resistant — with optional grille model LUH-VRG

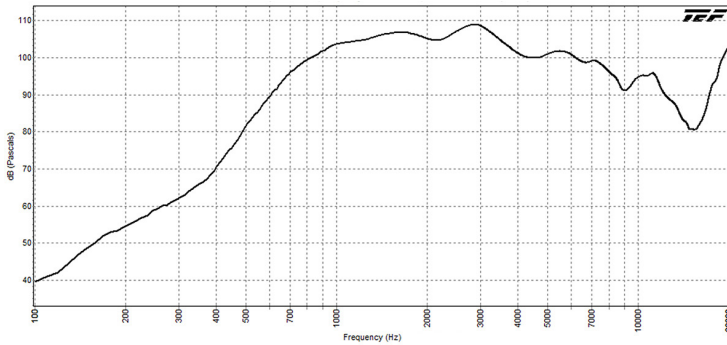
UNIHORNTM SERIES OVERVIEW:

THIS SPEC

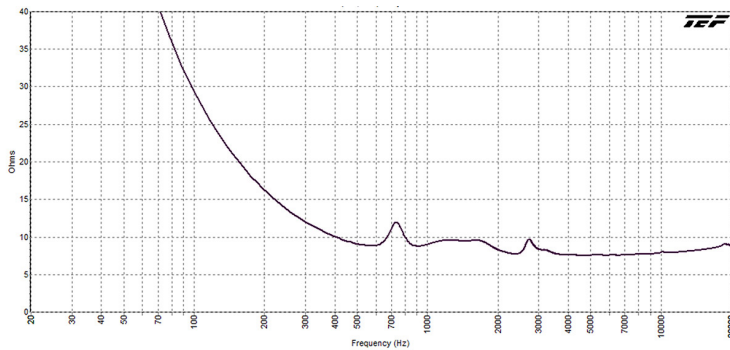
Model No.	Speaker Features / Capabilities			Assembly Includes			Applications		
	Driver	Transformer	8 ohm	Mounting Dogs	Trim Ring	Grille	General Signaling & Paging	Fire Protective Signaling	Intercom Systems (25V only)
LUH-15TA	15W	25/70/100V	√	√	√	Press-Fit	√	---	√
LUH-15TX	15W	25/70/100V	√	---	---	---	√	---	√
VRG-LUH15TX	15W	25/70/100V	√	---	---	Vandal-Resistant*	√	---	√

*The Unihorn is also available mounted to a square vandal-resistant grille (VRG-8) — order a separate backbox.

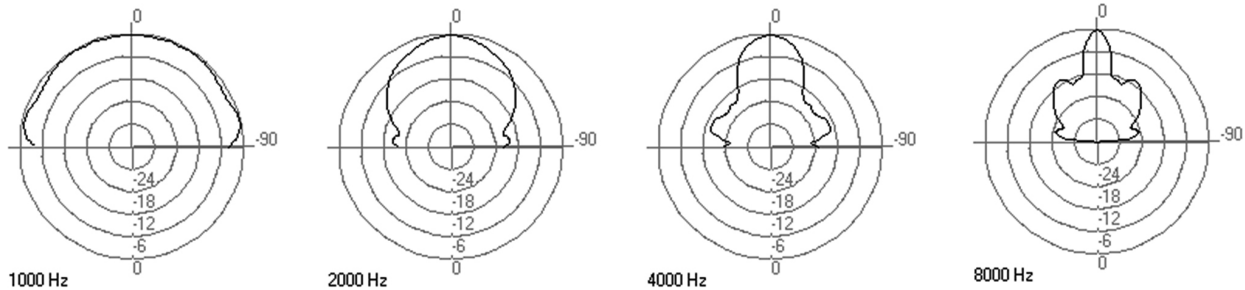
SPL VS. FREQUENCY 1W/1M, 8 OHM INPUT: (measured with no grille attached).



IMPEDANCE, 8 OHM INPUT: (measured with no grille attached).



POLAR DATA (180° half space mounting):



SCOPE OF PERFORMANCE AND POWER TESTS:

Lowell drivers and loudspeaker systems are tested to provide specifiers and contractors with data that reflects the performance of production products. Testing equipment includes the GoldLine TEF-20 analyzer (for performance measurements) and the LinearX LMS measurement system (for Thiele-Small Parameters).

POWER RATING is tested based on EIA Standard RS-426B.

FREQUENCY RESPONSE DATA is provided which is the measured frequency response range (defined by +6dB) which is useful in predictive engineering calculations.

SENSITIVITY (SPL) DATA IS PRESENTED IN TWO WAYS: Log Average SPL is a computer calculated log average of the SPL measured at 1 meter with 1 watt input over the stated frequency response range. Maximum SPL is calculated based on the measured log average SPL and the power rating of the speaker.

Thiele-Small Parameters for raw drivers are measured using the LinearX LMS measurement system. These parameters are useful in determining the optimum type and size of enclosure for a specific driver.

IMPEDANCE DATA IS PRESENTED IN THREE WAYS: Nominal Impedance is the generally accepted impedance for use in making comparisons with competitive products; the Impedance Curve is a graphical representation of the impedance that is measured in the lab and gives the impedance of the device over the audio frequency range; Minimum Impedance is the lowest impedance measurement at a frequency within the specified frequency response range of the speaker.

POLAR DATA is presented for the averaged one octave band surrounding the center frequencies of 1000Hz, 2000Hz, 4000Hz, and 8000Hz. Radial polar response curves show the relative change in sound pressure level as one moves from directly on-axis to an increasingly off-axis listening position. Since coaxial speaker drivers are symmetrical in the vertical and horizontal directions, only one set of polar plots will be presented for coaxial drivers and speaker systems incorporating coaxial drivers.

DISPERSION ANGLES: For more information on dispersion angles visit lowellmfg.com to download the white paper "Distributed System Speaker Spacing for the Integrator" or try the online Speaker Spacer app for quick calculations.

- Conical Dispersion is the angle of coverage where the SPL at an equal distance from the speaker is no more than 6dB down from the on-axis value over the 2000Hz octave band. Conical Dispersion can be used to compare two speakers, if the conical dispersion is provided for each.
- Linear Dispersion is the angle of coverage where the SPL at the average listening height (where listeners' ears would be) is no more than 6dB down from the on-axis value over the 2000Hz octave band. Linear Dispersion is used to determine the proper speaker spacing in distributed speaker systems.

SELECTOR SWITCH POSITIONS:

Switch Position	Nominal Impedance	Watts @25V	Watts @70V	Watts @100V
1	5000	.13	1.0	2.0
2	2500	.25	2.0	4.0
3	1300	.50	3.8	7.5
4	666	1.0	7.5	15
5	333	1.9	15	x
6	133	4.7	x	x
7	89	7.5	x	x
8	45	15	x	x

x = DO NOT USE. Switch positions 6,7,8 (for 70V applications) and 5,6,7,8 (for 100V applications) will exceed the power handling capacity of the driver and transformer and could destroy the driver, transformer, and/or amplifier.

A&E SPECIFICATIONS:

The re-entrant horn shall be Lowell Model LUH-15TA, which shall include a self-contained compression driver in aluminum weather-resistant housing that can be installed in 4 inch deep spaces. Power rating shall be 15 watts continuous. Frequency response shall be 740Hz–7.4kHz (± 6 dB). Sound pressure level shall be 105dB (1W/1M) average, 116.8dB SPL (max) 15W/1M calculation based on power rating and measured sensitivity. Dispersion shall be 80 degrees conical @2000Hz (-6 dB). Unit shall include a 100/70/25V transformer with taps selectable on front and rear of horn, and includes an 8ohm transformer bypass input. The horn will ship ready for standard two-wire connection with cable exiting through a rear waterproof gland-type connector. Housing shall be 7.1 in. diameter at its widest measure with an 8 in. diameter flat face. The assembly shall include an aluminum trim ring/grille (9.6 in. diameter) and have no visible hardware and neutral grey finish. The assembly shall mount using three screwdriver-activated clamps that are adjustable for depths of 0 to 1.5 in. (factory setting) or 1 to 2.125 in. (when dog ear clamps are reversed), or it can be mounted using screws (not included).

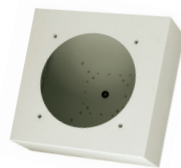
ACCESSORIES: (order separately)

NOTE: Unihorn Model LUH-15TA may be mounted to most industry standard 8" speaker grilles. This will not void the UL Listing.



LUH-VRG
vandal-resistant
cast aluminum grille
w/trim ring
indoor / outdoor

NOTE: The LUH-VRG grille can mount directly to the Unihorn.



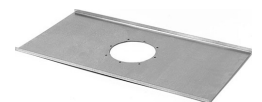
LUH-BOX
recessed or surface box
galvanized steel
indoor / outdoor



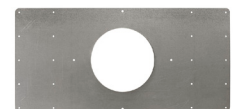
LUH-BRKT
U-bracket
aluminum w/stainless
steel mounting hardware
indoor / outdoor



LUH-TP
trim plate
aluminum
indoor / outdoor



LUH-TBAR
tile bridge
galvanized steel
indoor only



LUH-RIB
rough-in bridge
steel
indoor only



ALSO AVAILABLE: Unihorn model LUH-15TX can also be ordered pre-mounted to an 11.44-inch square, vandal-resistant grille, suitable for indoor or outdoor use, recessed or surface-mount applications. Order separate backbox. Note this assembly does not include the press-fit grille or trim ring, and it does not feature mounting dogs. For more information see the spec sheet for horn+grille assembly model VRG-LUH15TX.