

DESCRIPTION: Re-entrant metal horn with high efficiency 15W compression driver for clear voice paging and tone signaling in indoor or outdoor applications is ideal for use where a weather-resistant horn is specified for public address/signaling applications that require high intelligibility such as in schools, recreational facilities, warehouses, distribution centers, parking facilities, and commercial buildings. Ships ready for installation.

FEATURES:

- **Application:** Clear, loud voice paging and tone signaling in 25V, 70V or 100V systems.
- **Driver:** High efficiency 15W compression driver
- **Transformer:** High quality transformer with screwdriver-selectable taps. The tap selector and screw terminal connections are located in a recessed area in the rear with an integral strain relief and protective plastic cover.
- **Assembly:** Weather-resistant assembly (8.94" diameter x 9.38"D), suitable for indoor or outdoor use, features all-metal construction with a durable beige epoxy finish for long service life. The assembly has a universal swivel mounting bracket for precise positioning. The base of the mounting bracket (2.875" diameter) features three equally spaced holes (.28" diameter).
- **Hook-up:** Easy two-wire hook-up to rear access screw terminals.
- **Frequency Range:** Operates within a frequency range of 537Hz-4.5kHz (± 6 dB) with a sensitivity of 112.2dB log average (1W/1M) 124.0dB maximum SPL (calculated based on power rating and measured sensitivity).
- **Operating Temperature Range:** -40°F to 158°F (-40°C to 70°C)
- **Assembly Weight:** 3.55 lbs.
- **IP66 Rating Option:** Order one of the wiring compartment covers for IP66 rating (IEC 60529) for water- and dust-resistant operation.
- **Country of Origin:** Taiwan

A&E SPECIFICATIONS: The horn shall be Lowell model LH-15TA, a re-entrant design with high efficiency 15W compression driver, round bell and universal swivel-style base. Power rating shall be 15 watts continuous. Frequency response shall be 537Hz-4.5kHz (± 6 dB) with a sensitivity of 112.2dB log average (1W/1M) 124.0dB maximum SPL (calculated based on power rating and measured sensitivity). Dispersion shall be 50 degrees conical (2kHz Octave Band). Impedance shall be 5000, 2500, 1300, 670, 330, 90, 45 ohms. Horn shall include a 25/70/100V transformer with screwdriver selectable taps. Taps for 25V use shall be: .13, .25, .48, .93, 1.9, 6.9, and 13.9W. Taps for 70V use shall be: 1, 2, 3.8, 7.5, and 15W. Taps for 100V use shall be: 2, 4, 7.7 and 15W. Transformer connections shall be protected by a plastic cover with strain relief. The horn assembly shall measure 8.94" diameter x 9.38" deep and shall be weather-resistant metal construction painted in corrosion-resistant beige epoxy.

OPTIONAL (order separately): Wiring compartment covers enable the horn to be IP66 rated (IEC 60529) for water- and dust-resistant operation.

Note: *Do not suspend horn by wiring compartment cover—horn must be mounted using the (included) mounting bracket.*

- **LHA-15C — for conduit attachment:** Wiring compartment cover threaded conduit fitting 1/2"–14 NPT. Measures 2.9" x 1.58" x 1.09" from gasket to conduit entry. (.2 lbs.)
- **LHA-15G — for input with cable:** Wiring compartment cover waterproof grommet strain relief. Measures 2.9" x 1.58" x 2.11" from gasket to wire entry. (.25 lbs.)



LH-15TA



Rear View



Option LHA-15C



Option LHA-15G

Performance:

- Power Handling, Nominal 15 watts RMS (nominal) measured per EIA Standard RS 426-B
- Sensitivity 112.2dB log average (1W/1M)
124.0dB maximum SPL (calculated based on power rating and measured sensitivity)
- Frequency Response 537Hz-4.5kHz (±6dB)
- Dispersion Angle 50° conical (2kHz Octave Band)
- Impedance 5000, 2500, 1300, 670, 330, 90, 45 ohms
- Transformer Taps Screwdriver adjustable: 25V @ .13, .25, .48, .93, 1.9, 6.9, 13.9W
70V @ 1, 2, 3.8, 7.5, 15W
100V @ 2, 4, 7.7, 15W
- Connections Screw terminals with provisions for strain relief. Protected by a plastic cover affixed by 2 screws.

Physical:

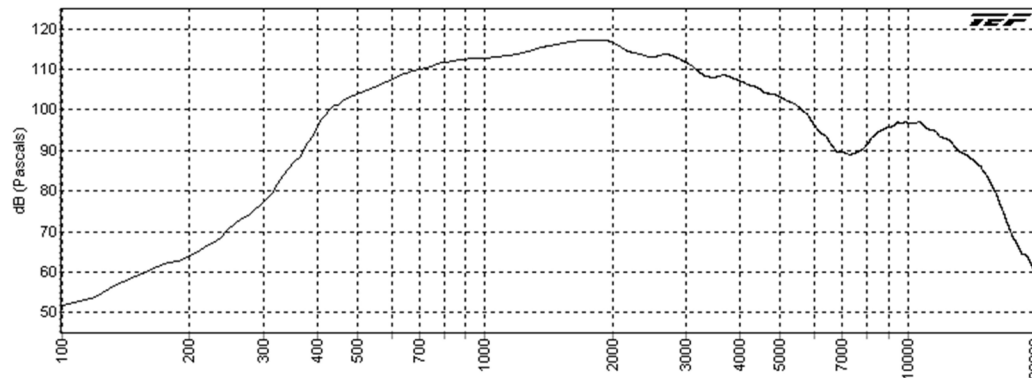
- Dimensions 8.94" (227.14mm) dia. x 9.38" (238.46mm) deep
- Housing Material Aluminum with ABS plastic terminal cover
- Mounting Base 2.875" (73mm) dia. with three equally spaced .28" (7.1mm) dia. holes.
- Mounting Bolt Circle 2.25" (57mm) dia.
- Net Weight 3.55 lbs. (1.6kg)
- Shipping Weight 4.55 lbs. (2.1kg)

SPL vs. Frequency 1W/1M:

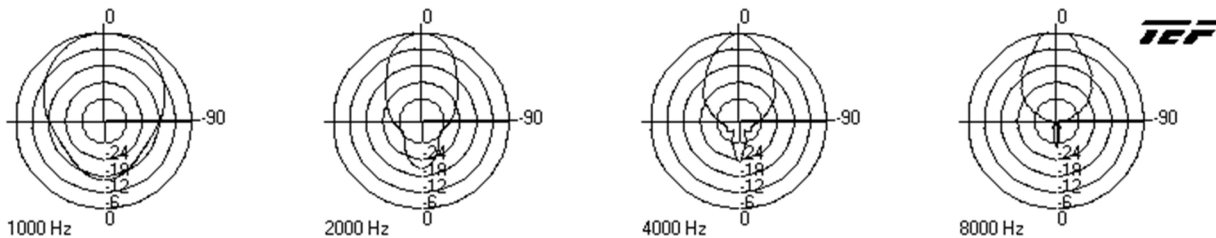
Low Frequency Protection: The LH-15TA is not designed to operate below 300Hz. Head-end processing equipment should include a 300Hz high-pass filter with a roll-off of 6dB per octave to limit the low frequency input to the horn. If head-end processing is not available, an alternate method of providing low frequency protection for the horn driver is to insert one non-polarized series capacitor at the high side input [terminal 2 (+)] of each horn.

Typical Protection Capacitor Values:

<u>Model No.</u>	<u>25 Volt Line</u>	<u>70 Volt Line</u>	<u>100 Volt Line</u>
LH-15TA	15 mfd	2 mfd	1 mfd



Polar Data:



Transformer Settings:

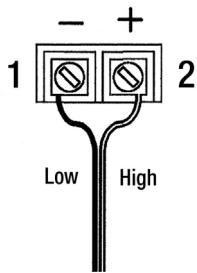
Switch Position	Impedance	Watts @ 25V	Watts @ 70V	Watts @100V
1	5000	.13	1	2
2	2500	.25	2	4
3	1300	.48	3.8	7.7
4	670	.93	7.5	15
5	330	1.9	15	DO NOT USE *
6	90	6.9	DO NOT USE *	DO NOT USE *
7	45	13.9	DO NOT USE *	DO NOT USE *

* **IMPORTANT:** Note that switch positions 6 and 7 are not used on 70V applications; and positions 5, 6, and 7 are not used on 100V applications. They exceed the capacity of the driver and transformer and could damage or destroy the driver and/or amplifier.

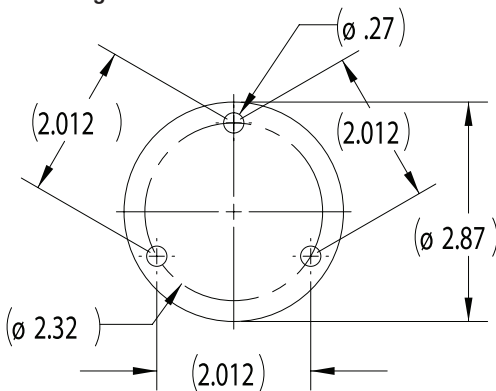
Connections:

A terminal for two-wire connection is located on the rear of the horn in a recessed area with integral strain relief and protective plastic cover.

Be sure to observe polarity (“-” to terminal 1 and “+” to terminal 2).



Mounting Bolt Pattern:



SERIES OVERVIEW:

Model No.	Description	Measurements	Weight
LH-15TA	Re-entrant Horn w/15W driver	8.94" diameter x 9.38"D	3.55 lbs.
LH-30TA	Re-entrant Horn w/30W driver	10.37" diameter x 10.63"D	4.85 lbs.
<i>Accessories</i>			
LHA-15C	Wiring Compartment Cover for 15W Horn – Conduit	2.9" x 1.58" x 1.09" (gasket to conduit entry)	.20 lbs.
LHA-15G	Wiring Compartment Cover for 15W Horn – Cable	2.9" x 1.58" x 2.11" (gasket to wire entry)	.25 lbs.
LHA-30C	Wiring Compartment Cover for 30W Horn – Conduit	3.28" x 1.73" x 1.09" (gasket to conduit entry)	.20 lbs.
LHA-30G	Wiring Compartment Cover for 30W Horn – Cable	3.28" x 1.73" x 2.11" (gasket to wire entry)	.25 lbs.

