

Model No.

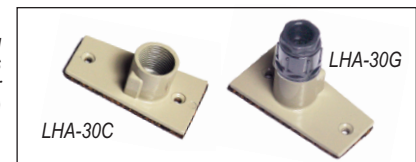
LH-30TA 30W Re-entrant Horn

• Includes transformer

Double re-entrant metal horn with high efficiency 30W compression driver for clear voice paging and tone signaling in indoor or outdoor applications is ideal for use where a weather-resistant speaker is specified for public address/signaling applications that require high intelligibility (e.g. schools, recreational facilities, warehouses, distribution centers, parking facilities and commercial buildings). Model LH-30TA operates within a frequency range of 411Hz-4.0kHz (± 6 dB) with a sensitivity of 118.1 log average (1W/1M) 132.9dB maximum SPL (calculated based on power rating and measured sensitivity). Horn includes high quality transformer for use in 25V, 70V or 100V distributed applications; taps are selected with a screwdriver. Tap selector and screw terminal connections are located on rear in recessed area with integral strain relief and protective plastic cover. Horn mounts using universal, swivel bracket for efficient installation and positioning. Mounting bracket base measures 2.875" dia. with 3 equally spaced holes (.28" dia.). Horn assembly measures 10.37" dia x 10.63" deep and features all-metal construction with a durable beige epoxy finish for long service life.



Optional wiring compartment covers for IP66 rating (order separately)



Features

- Clear, loud paging and tone signaling.
- Versatile application in 25V, 70V or 100V systems with built-in transformer (screwdriver adjustable).
- Weather-resistant assembly suitable for indoor or outdoor use.
- Universal swivel mounting bracket for easy installation and precise adjustment of orientation.
- Easy 2-wire hook-up to rear access screw terminals.
- Operating temperature range: -40°F (-40°C) to 158°F (70°C)
- Assembly weighs 4.85 lbs.
- Ships ready for installation.
- IP66 rated (IEC 60529) for water-resistant and dust-resistant operation when optional LHA-30G or LHA-30C wiring compartment covers are used.

Options for IP66 Rating: (water-resistant, dust-resistant)

- **LHA-30C:** wiring compartment cover threaded conduit fitting $\frac{1}{2}$ "-14 NPT (for conduit attachment)
- **LHA-30G:** wiring compartment cover waterproof grommet strain relief (for input with a cable)

A&E Specifications

The horn shall be AVLELEC Model LH-30TA, which shall be a double re-entrant design with a high efficiency 30W compression driver, round bell and universal swivel-style base. Power rating shall be 30 watts continuous. Frequency response shall be 411Hz-4.0kHz (± 6 dB) with a sensitivity of 118.1 log average (1W/1M) 132.9dB maximum SPL (calculated based on power rating and measured sensitivity). Dispersion shall be 40 degrees conical (2kHz Octave Band). Impedance shall be 2500, 1300, 670, 330, 169, 90, 45 ohms. Horn shall include a 25/70/100V transformer with screwdriver selectable taps. Taps for 25V use shall be: .25, .48, .93, 1.9, 3.7, 6.9 and 13.9 W. Taps for 70V use shall be: 2, 3.8, 7.5, 15, and 30W. Taps for 100V use shall be: 4, 7.7, 15, and 30W. Transformer connections shall be protected by a plastic cover with strain relief. The horn assembly shall measure 10.37" dia x 10.63" deep and shall be weather-resistant metal construction with all metal parts painted in corrosion resistant beige epoxy.

NOTE: Do not suspend horn by an optional wiring compartment cover. Horn must be mounted using the (included) universal mounting bracket.

Model Number Summary

Model No.	Description.	Size	Weight
LH-30TA	30W re-entrant horn	10.37" dia. x 10.63" deep	4.85 lbs.
Optional			
LHA-30C	Wiring compartment cover	3.28" x 1.73" x 1.09" (from gasket to conduit entry)	0.20 lbs.
LHA-30G	Wiring compartment cover	3.28" x 1.73" x 2.11" (from gasket to wire entry)	0.25 lbs.

PERFORMANCE

Power Handling, Nominal
 Sensitivity

30 watts RMS (nominal) measured per EIA Standard RS 426-B
 118.1dB log average (1W/1M)
 132.9dB maximum SPL (calculated based on power rating and measured sensitivity)
 411Hz-4.0kHz (± 6 dB)
 40° conical (2kHz Octave Band)
 2500, 1300, 670, 330, 169, 90, 45 ohms
 Screwdriver adjustable: 25V @ .25, .48, .93, 1.9, 3.7, 6.9, 13.9 W
 70V @ 2, 3.8, 7.5, 15, 30W
 100V @ 4, 7.7, 15, 30W

Connections

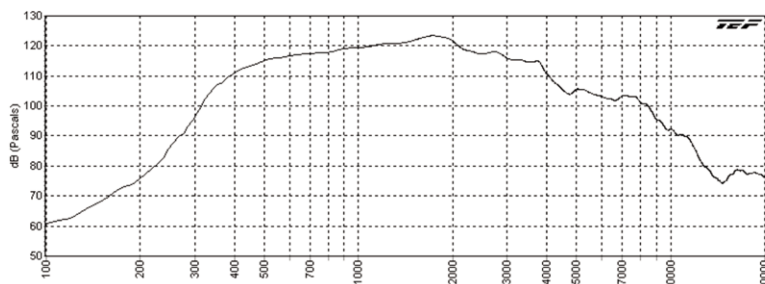
Screw terminals with provisions for strain relief. Protected by a plastic cover affixed by 2 screws.

PHYSICAL

Dimensions
 Housing Material
 Mounting Base
 Mounting Bolt Circle
 Net Weight
 Shipping Weight

10.37" (263.4mm) dia. x 10.63" (270.01mm) deep
 Cast aluminum with ABS plastic terminal cover
 2.875" (73mm) dia. with three equally spaced .28" (7.1mm) holes.
 2.25" (57mm) dia.
 4.85 lbs. (2.2kg)
 5.90 lbs. (2.7kg)

SPL vs. Frequency 1W/1M

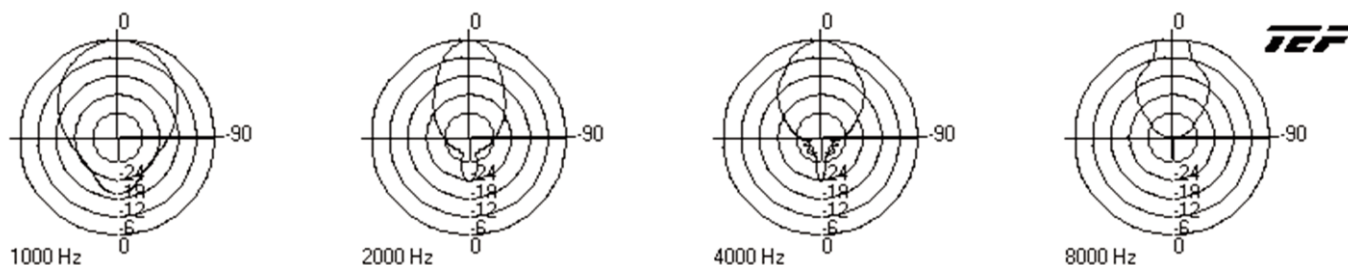


Low Frequency Protection: The LH-30TA is not designed to operate below 300 Hz. Head-end processing equipment should include a 300 Hz high-pass filter with a roll-off of 6dB per octave to limit the low frequency input to the horn. If head-end processing is not available, an alternate method of providing 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.

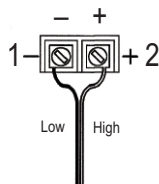
Typical protection capacitor values

Model No.	25 Volt Line	70 Volt Line	100 Volt Line
LH-30TA	30 mfd	4 mfd	2 mfd

Polar Data:



Connections:



A terminal for 2-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).

Transformer Settings:

Switch Position	Impedance	Watts @ 25V	Watts @ 70V	Watts @ 100V
1	2500	.25	2	4
2	1300	.48	3.8	7.7
3	670	.93	7.5	15
4	330	1.9	15	30
5	169	3.7	30	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.