

INTRODUCTION

LH201 is a high power long throw horn speaker, which is driven by a single 100W 100V driver. When higher power is required, an optional dual throat driver can be fixed to mount double driver for higher intensity throw.

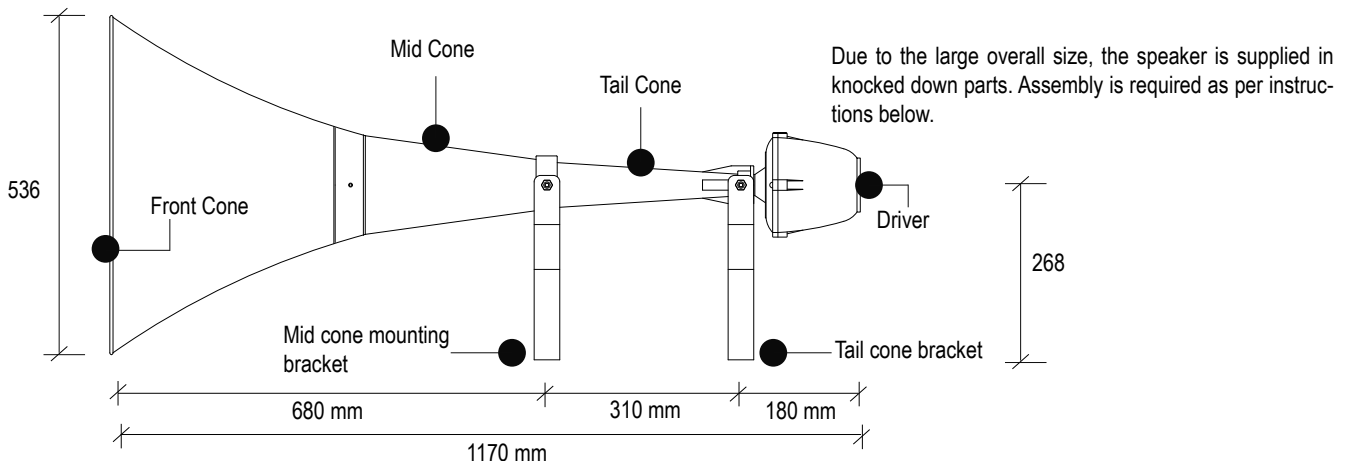
LH201 is built with toughness, using quality materials to outperform other similar speakers.

It is most suitable for outdoor installations in areas such as mosques, ports, beach or dam early warning systems, etc.

TECHNICAL SPECIFICATIONS

Power rating	100W 100V Line
Power taps	50 / 75 / 100 W 100V line
Max power	120W 100V
Driver	1 3/8" thread driver
Primary impedance	200 / 133 / 100 Ohm
Secondary impedance	16 Ohm
SPL @ 1W/m, +/3 dB, 1 kHz	110 dB
Max SPL at rated power	130 dB
Body material	Aluminum
Bracket	Steel with powder epoxy coating
Driver connector (2 way)	Aluminum die cast (optional)
IP rating	IP 65
Min / Max ambient temperature	- 20 C to 55 C
Overll size w bracket (W x H x D)	536 dia x 1170 mm
Weight (excluding driver)	5.4 kg
Weight (including driver - single)	8.4 kg
Colour	Beige

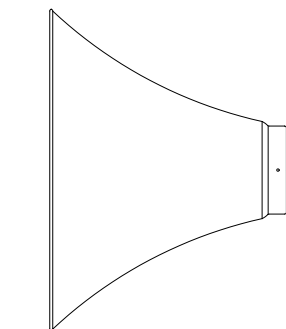
PHYSICAL DIMENSIONS



UNPACKING & PARTS

Carton 1

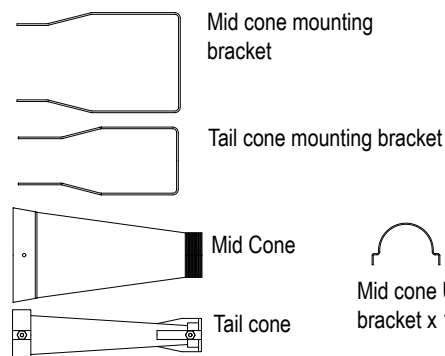
8 units of front flares / cones are contained in each carton box with dimensions of :
 Size : 555 x 555 x 625 mm
 Gross weight : 16.0 kg (8 uts)
 Nett weight : 1.75 kg (each cone)







Front Cone

Carton 2

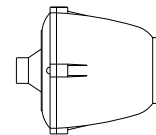
Brackets, cones and fasteners are placed inside this carton.
 Size : 340 W x 250 H x 185 mm
 Gross weight : 3.65 kg



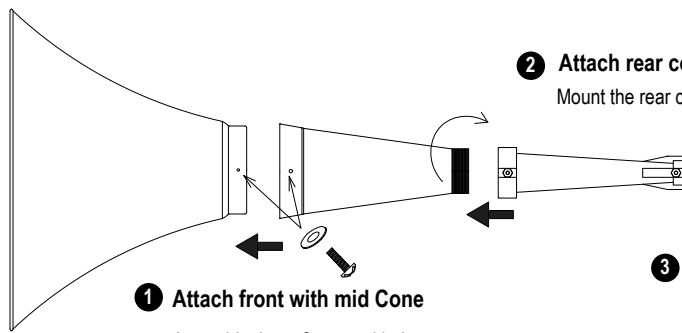
-  Rubber ring (30 mm x 1, 48 mm x 1)
-  Metal washer (14 mm x 4, 16 mm x 4)
-  M8 x 10 Hex Screw
-  M5 x 14 PH Screw

Carton 2

The driver of the speaker is in this small carton box
 Size : 155 W x 185 H x 155 D mm
 Gross weight : 3.15 kg
 Nett weight : 3 kg



100W 100V Driver

SPEAKER ASSEMBLY

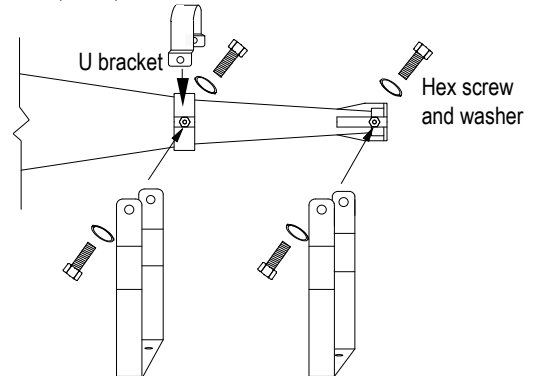
Assemble these 2 parts with the 4 nos of screws (M5 x14) and washers (14 mm) provided.

2 Attach rear cone to mid cone

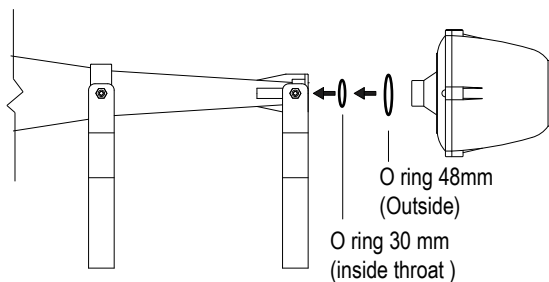
Mount the rear cone to the assembled front and mid cones by turning clock wise.

3 Mid and rear mounting bracket assembly

Mount the brackets to the mid and tail cone assembly with hex screws provided (4 nos)

**4 Speaker driver mounting**

Mount the driver to the tail cone's throat after inserting the two rubber O rings. Smaller ring is to be inserted inside the throat whereas the bigger is for padding the driver's neck to the throat's mouth.



Turn the driver clockwise and tighten gently to the throat

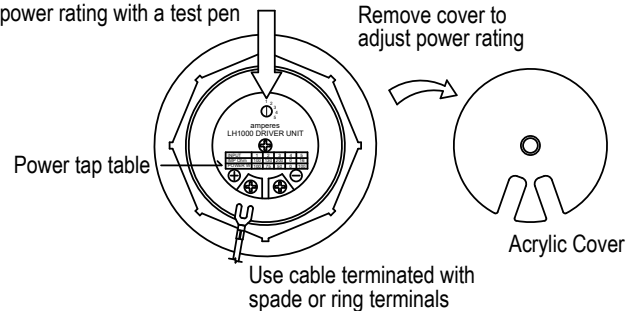
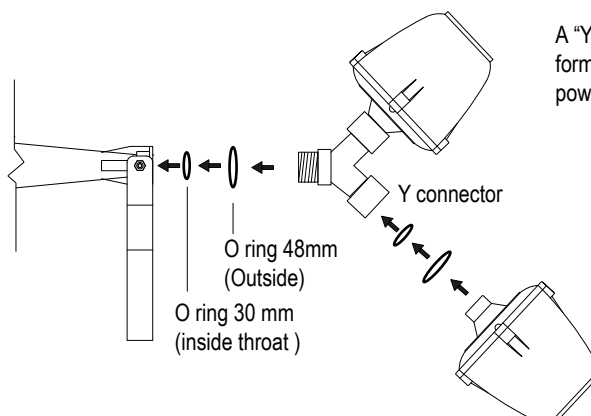
4 Driver cable termination

The standard supplied driver is 100W 100V (Compression Driver). After mounting the speaker, terminate the incoming cable and adjust the power rating required by using a test pen.

For outdoor installation, it is always recommended to position the acrylic opening at bottom to avoid water accumulation. You may want to apply some silicon to the terminal to prevent corrosion to the contacts.

Adjust power rating with a test pen

Remove cover to adjust power rating

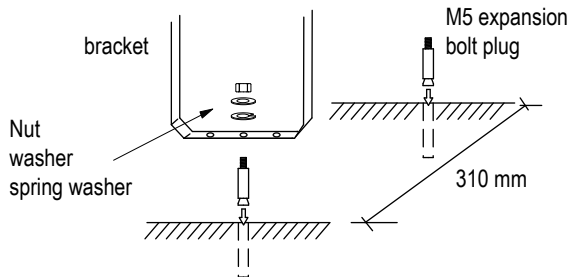
**Optional dual throat / dual driver**

A "Y" connector is available as an option for mounting 2 drivers which would form a 200W horn speaker. We recommend using same type of driver (same power rating / model) to ensure minimal sound distortion.

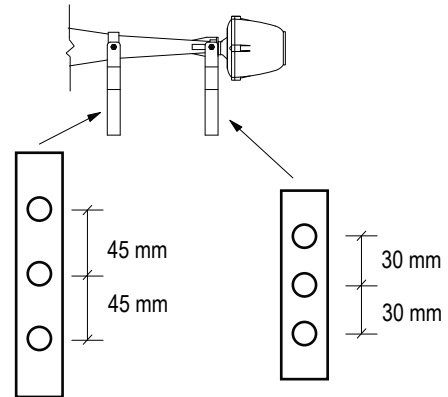
HORN SPEAKER MOUNTING

LH201 is a high power speaker, and thus would normally mounting at high level, probably on roof top slabs, minarets or on high poles. As it is mounted outdoor, it will be subjected to unfavourable environmental conditions such as high wind speed, snow, heavy rain or thunderstorm, and thus mounting them securely is very important. Nuisance from animals such as birds droppings may also corrode the metal, and we recommend secondary fasteners such as safety chain as additional safety.

Floor / Slab Mount



Mount the brackets to the slabs with either single or dual bolts plugs per bracket, subjected to site condition.

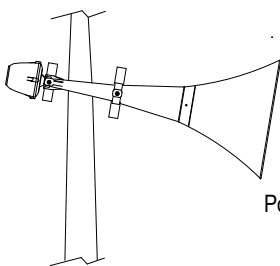
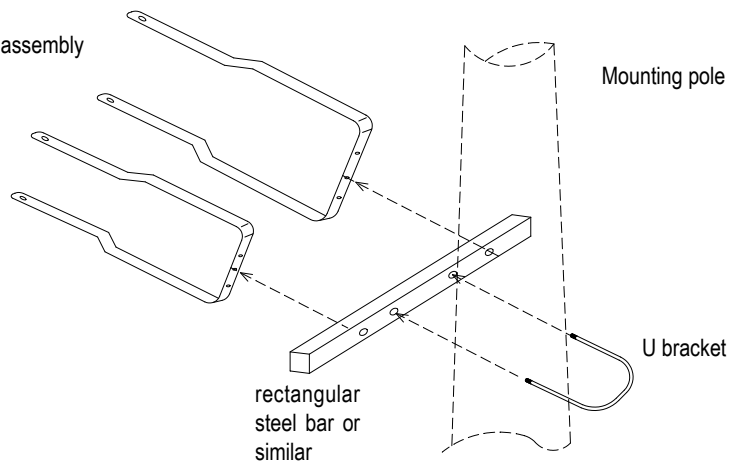


Pole Mounting

Often the horn speakers are to be mounted on poles, tower, etc.

The illustration shown is only a suggestion for the pole mounting. Other method of mounting may be used. For outdoor mounting, it is necessary to use rust resistance fasteners to avoid effect of environment.

Speaker assembly brackets



Tilt the angle of the speaker, with angle amount subjected to the targeted throw. It is always advisable to tilt it slightly to avoid water collection that may seep into the driver.

Point distance
Horizontal distance
Listening point

Sound does not travel in straight line in outdoor environment, and tends to bend upwards, subjected to the atmosphere.

SPL throw table

Horizontal distance (m)	1	10	50	100	150	200	250	300
Point Distance	15	18	52	101	150.5	200.5	250.5	300.5
SPL (dB) at 1 W tap	86.5	85	75.5	70	66.5	64	62	60.5
SPL (dB) at 50 W tap	103.5	102	92.5	87	83.5	81	79	77.5
SPL (dB) at 100 W tap	106.5	105	95.5	90	86.5	84	82	80.5

Horizontal distance - distance from speaker flare to listening point measured horizontally.

Point distance - distance measured directly from flare to listening point.

The above table shows approximate SPL levels with installation height of 15 m, tilt angle 10 degree downwards.

Safety Standards: EN55013 EN55020
EN IEC 62368-1
EN 60529 : 1991+A1:2000 +A2 : 2013



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Warranty Conditions

Only Amperes Electronics Service Centres are allowed to make warranty repairs : a list of Amperes Electronics authorized service centres may be asked by the purchaser or send directly to Amperes Electronics Sdn Bhd at 70 Jalan Industri PBP3, Tmn Perindustrian Pusat Bandar Puchong, 47100, Puchong, Selangor. This warranty is not valid if repairs are performed by unauthorized personnel or service centres.

Eligibility

Amperes Electronics' Service Center will accept any device send in for repair / checking purchased from any of our dealers. Some dealers may have the right to refuse repair / service / checking for any device not purchased from them directly.

Coverage

This warranty covers only repairs and replacement of defective parts, due to defects of components or workmanship during product warranty period. For any product purchased exceeding the warranty period, a cost of repair shall be presented and will only proceed to rectifications upon agreed value. If the owner decides not to proceed, a minimal checking fees will be applied.

Exclusions

This warranty does not cover damages caused by misuse, negligence in application as well as using the product with power supply voltage other than shown on the product, or any other power supply source / adapter not recommended by the manufacturer.

This warranty does not cover damages caused by fire, earthquakes, floods, lightning and every cause not directly related to the unit.

This warranty certificate is valid only for the described product, and is not valid if modifications are made on this certificate or identification labels applied to the unit or any other modifications to the physical unit other than its intended usage.

Duration / Warranty Period

This warranty covers all the material and manufacturing defects and is valid for a period of 36 months from the date of purchase or for a specified period in countries where this is stated by a national law. In this case, the extension is valid only in the country where the product is purchased.

Cost of Claiming Warranty

Cost and risk of transportation as well as removal and installation of the product from the main system are for the account of the purchaser. This warranty shall not extend to the replacement of the unit.

Limitations

This warranty does not include any indemnity in favor of the purchaser or the dealer for the period out of use of the unit, moreover the warranty does not cover any damages which may cause to the people and things during the use of the product. Our liability is limited to the cost of the product

Amperes Electronics Sdn Bhd is not obliged to modify previously manufactured products under warranty if the design changes or improvements are made.

The purchaser is deemed to agree to the above warranty conditions once the product packaging is unpacked., Otherwise the product shall be returned to the seller in proper original condition.

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It is recommended that all services and repairs of this product to be carried out by Amperes Electronics or its authorized service agents.

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