

## **eHORN10**

SPECIALIZED LOUDSPEAKERS

*Long Throw Horn*



**USER MANUAL**

# INDEX

1.	IMPORTANT REMARK.....	3
2.	IMPORTANT SAFETY INSTRUCTIONS .....	4
3.	IMPORTANT NOTE.....	6
4.	INTRODUCTION .....	6
5.	MAIN SPECIFICATIONS.....	6
6.	CONNECTING.....	7
7.	LOCATION AND INSTALLATION .....	8
8.	TECHNICAL SPECIFICATIONS .....	9
9.	CONTENTS OF THE PACKAGE .....	9

## 1. IMPORTANT REMARK



**WARNING: SHOCK HAZARD - DO NOT OPEN**

**AVIS: RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

**WARNING:** An apparatus with Class I construction shall be connected to a mains socket-outlet with a protective earthing connection.

## 2. IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug the apparatus during lightning sorts or when unused for long periods of time.
13. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Disconnecting from mains: Switching off the POWER switch all the functions and light indicators of the amplifier will be stopped, but fully disconnecting the device from mains is done unplugging the power cord from the mains input socket. For this reason, it always shall remain readily operable.
15. Equipment is connected to a socket-outlet with earthing connection by means of a power cord.
16. The marking information is located at the bottom of apparatus.
17. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

**NOTE:** *This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.*



**WARNING:** This product must not be discarded, under any circumstance, as unsorted urban waste. Take to the nearest electrical and electronic waste treatment centre.

**NEEC AUDIO BARCELONA, S.L.** accepts no liability for any damage that may be caused to people, animal or objects due to failure to comply with the warnings above.

### 3. IMPORTANT NOTE

Congratulations. You now possess the result of careful design and meticulous manufacturing. We are very grateful for your trust in purchasing our full-range & long throw horn eHORN10.

In order to obtain maximum effectiveness and performance, it is VERY IMPORTANT, prior to connection, to carefully read and to take into account the instructions given in this manual. To guarantee optimum operation, we recommend that all maintenance be carried out by our authorised Technical Services.

### 4. INTRODUCTION

The eHORN10 is a long throw & full-range horn, prepared for outdoor operation. It incorporates a 10-inch low-frequency transducer and a 1.7-inch high-frequency transducer providing 250 W/8  $\Omega$ . A 100/70 V line transformer with power options of 240 W/120 W/60 W/8  $\Omega$ .

### 5. MAIN SPECIFICATIONS

- Two-way horn of water-resistant ABS
- 250 WRMS / 8  $\Omega$
- Power options 70/100 V: 240 W/120 W/60 W/8  $\Omega$
- IP46 rating
- Dispersion (H x V): 60° x 40°
- NL8 Speakon© connector (included) with pre-configured connectors for 100V/240 W
- Finished in black
- EASE Win file available

## 6. CONNECTING

The eHORN10 operates into high or low impedance. For this reason, it incorporates an NL8 Speakon® connector that allows its operational mode to be configured. The NL8 Speakon® connector is configured according to the connection diagram shown below. As supplied, this connector can be used pre-configured for operation with a 70/100V 240 W line.

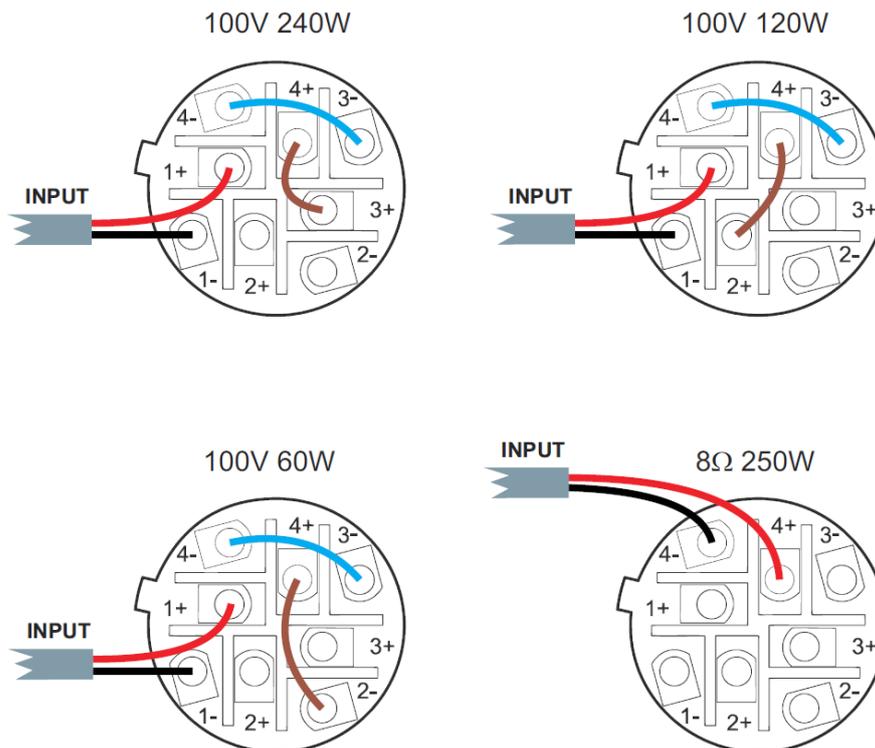


Figure 1: Speakon® connection diagram

**Note:** if the loudspeaker is used in 70V installations, the corresponding powers for the 100V position will be reduced to half those indicated on the switch. To one quarter for 50V installations.

The low-impedance connection will allow the loudspeakers to be configured for operating under these conditions with a maximum power of 250 W. If this setup is adopted, consideration must be given to amplifier limits when several loudspeakers are connected to its output, especially if the overall impedance is below 4  $\Omega$ . Furthermore, it is important that the cable connecting the amplifier outputs to the loudspeakers is of good quality and as short as possible; this is of special significance when long distances have to be covered and loudspeaker impedance is low.

**Note:** The loudspeaker distribution along a 70/100V line historically arises from the technical requirement to mix loudspeakers of different impedances and/or powers on the same amplification line or channel, but without any need to worry about the total impedance of the full assembly. Moreover, this solution enables long cable runs with significantly smaller sections than those usually employed in low-impedance installations, but with minimum power losses.

**WARNING!** If the system is accidentally connected with the switch in the 100 V/60 W position to a low-impedance amplifier, no damage will be caused to the loudspeaker, but its performance will be well below its specifications. If the loudspeaker is accidentally connected to a 70/100 V line, in the 8  $\Omega$ , it will be seriously damaged.

## 7. LOCATION AND INSTALLATION

In general, the following rules will be followed:

- The unit must always be installed on firm, solid surfaces.
- Ensure that the surface on which the loudspeaker is to be installed can withstand its weight.
- Always use a safety cable to secure the loudspeaker installation.
- For good sound reproduction, there must not be any obstacles between the loudspeaker and the audience.

High frequencies, unlike bass frequencies, are extremely directional and any obstacle will involve attenuation in their response.

## 8. TECHNICAL SPECIFICATIONS

<b>Loudspeaker type</b>	Long throw, 2-way
<b>Nominal impedance</b>	8 $\Omega$
<b>RMS/Peak power (8 <math>\Omega</math>)</b>	250/500 W
<b>Power options</b>	240 W / 120 W / 60 W / 8 $\Omega$
<b>Frequency response (-3 dB)</b>	90 Hz - 18 kHz
<b>Sensitivity 1W/1m</b>	103 dB
<b>Max sound pressure @ 1 m</b>	127 dB
<b>Crossover frequency</b>	2.2 kHz
<b>LF/MF loudspeaker</b>	10-inch
<b>HF driver</b>	1.7-inch
<b>Dispersion (H x V)</b>	60° x 40°
<b>Connections</b>	NL8 type connector
<b>IP rating</b>	IP46
<b>Finish colour</b>	Black
<b>Material</b>	ABS
<b>Dimensions (W x D x H)</b>	425 x 630 x 452mm
<b>Weight</b>	32.0 kg

## 9. CONTENTS OF THE PACKAGE

- eHORN10
- NL8 Speakon© connector
- User's quick guide
- Warranty card



All product characteristics are subject to variation due to production tolerances. **NEEC AUDIO BARCELONA S.L.** reserves the right to make changes or improvements in the design or manufacturing that may affect these product specifications.

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