

# eMOTUS5016

## COMMERCIAL LOUDSPEAKERS

Outdoor loudspeaker



# USER MANUAL



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## 1. PRECAUTIONS

### 1.1 Important Notice



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


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



The flashing light with an arrowhead symbol inside an equilateral triangle on it is intended to alert the user of the presence of non-insulated “dangerous voltage” within the enclosure, which might be of sufficient magnitude to pose a risk of electric shock to users.



The exclamation mark within an equilateral triangle is intended to alert the user of the requirement for important operating and maintenance (servicing), for which instructions may be found in the literature accompanying the appliance.

**WARNING (If applicable):** Terminals marked with symbol “” may be of sufficient magnitude to pose a risk of electric shock. The external wiring connected to terminals requires installation by a technician, or the use of ready-made leads or cords.

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

**WARNING:** A device with Class I manufacturing ought to be connected to a mains socket outlet with a protective earthing connection.



**WARNING:** Ecler products have a long lifetime of more than 10 years. This product must never be discarded as unsorted urban waste, but must be taken to the nearest electrical and electronic waste treatment centre.



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## 1.2 Key Safety Directions


1. Read the following directions.
2. Keep the following directions.
3. Heed all warnings.
4. Follow all directions.
5. Do not use this device in proximity to water.
6. Clean only with a 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 devices (including amplifiers) that may release heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades, being 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, contact a qualified electrician for a 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 of exit from the device.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug the device during lightening sorts or when unused for long periods of time.
13. Refer all servicing to qualified personnel. Servicing is required when the device has been damaged in any way, such as power supply cord or plug damage, liquid spillage or objects onto the device, the device has been exposed to rain or humidity, does not operate normally, or has been dropped.
14. Disconnecting from mains: When switching off the POWER switch, all the functions and light indicators of the unit will be stopped, but fully disconnecting the device from mains is done by unplugging the power cable from the mains input socket, therefore, it should always remain easily accessible
15. Equipment is connected to a socket-outlet with an earthing connection by means of a power cord.
16. The marking information is located at the rear/bottom of the unit.
17. The device shall not be exposed to dripping or splashing liquids, and no liquid-filled objects, such as a filled up glass, shall be placed on top of the device.

## 1.3 Cleaning Directions



**Clean the unit with a soft, dry clean cloth** or slightly wet with water and neutral liquid soap only, then dry it with a clean cloth. Be careful that water never gets into the unit through any hole. Never use alcohol, benzine, solvents or abrasive substances to clean this unit.

**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.

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## 2. WARRANTY & ENVIRONMENT

**Thank you for choosing our Ecler eMOTUS5016!**

**We greatly value your trust.**

It is **VERY IMPORTANT** to carefully read this manual and to fully understand its contents before any connecting takes place in order to make the best use of this equipment, as well as to get the best performance from it.

To ensure optimal operation of this device, **we strongly recommend that its maintenance be carried out by our authorised Technical Services.**

**All ECLER products are covered by warranty**, please refer to [www.ecler.com](http://www.ecler.com) or the warranty card included with this product for the period of validity and conditions.



**Ecler is truly committed with the environment and planet sustainability, energy saving and CO<sub>2</sub> emission reduction.** Recycling materials and using non-contaminant components are also top priorities in our green crusade.

**Ecler has deeply evaluated and analyzed the environmental impacts of all the processes involved in the production of this product, including packaging, and has alleviated, reduced and/or compensated for them.**

## 3. PACKAGE CONTENTS

- 2 x eMOTUS5016 loudspeakers.
- 2 x articulated brackets for wall mounting
- 1 x 5mm Allen key
- 2 x security steel cable against any possible flaking off, with corresponding screws and lock washers.
- 8 x adhesive legs for positioning the loudspeakers on a desktop
- Rear connection housing for outdoor use
- First Steps Guide.
- Warranty card.



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## 4. DESCRIPTION & FEATURES

**eMOTUS5016** is a low impedance (16 ohm) loudspeaker cabinet, 5" woofer with eMOTUS unique design.

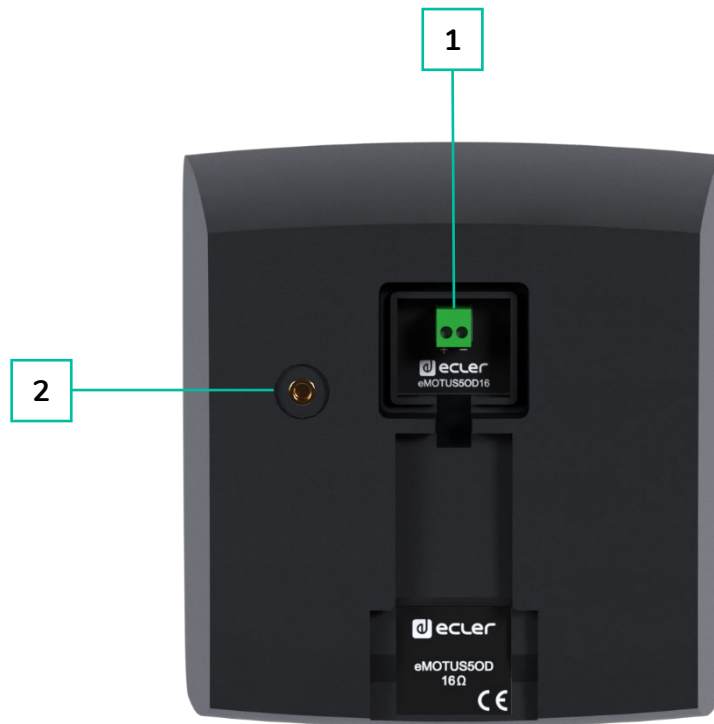
Ready for indoor and outdoor applications, thanks to its aluminium grill and UV protection treatment (IP65-rated). A professional and compact loudspeaker, cost-effective and with a unique design that will easily fit in a massive number of applications: theme parks, gardens, nature parks and urban spaces, leisure, health and sport centres, residential buildings, outdoor areas, etc. Available in black and white colour.

Wall mount accessories and safety sling are included for an easy and secure installation.

### 4.1 Main Features

- 5" woofer + 1" coaxial tweeter.
- 40W RMS @ 16Ω.
- Euroblock connection.
- Outdoor design: IP65 rated
- Rubber cover to protect rear connections.
- Wall bracket and security steel cable included.
- Adhesive legs for positioning the loudspeakers on a desktop included.
- Available in black (RAL9005) and white (RAL9003) colour.
- [EASE files available.](#)

## 5. REAR PANEL



1. 2-terminal Euroblock connector
2. Attachment point for the safety cable



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## 6. CONNECTING


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When connecting a 16-ohm speaker to an audio system, proper wiring and impedance matching are essential to ensure optimal performance and avoid potential damage to your amplifier.

Follow these guidelines for a safe and efficient setup:

1. Check Your Amplifier's Compatibility

Before connecting the speaker, verify that your amplifier supports a 16-ohm load. Many amplifiers are designed for 4, 8, or 16-ohm speakers, but it is crucial to check the manufacturer's specifications to avoid mismatching impedance, which can lead to reduced performance or equipment damage.


2. Use Proper Speaker Cables

Always use high-quality speaker cables with adequate thickness (gauge). For longer cable runs, thicker cables (lower gauge numbers) are recommended to reduce resistance and maintain signal integrity.

3. Correct Wiring and Polarity

Ensure that the speaker is connected with the correct polarity:

- The positive terminal (+) of the amplifier should be connected to the positive terminal (+) of the speaker.
- The negative terminal (-) of the amplifier should be connected to the negative terminal (-) of the speaker.


 Proper polarity ensures that the speaker moves in sync with other speakers in a multi-speaker setup, preventing phase cancellation.

4. Series and Parallel Configurations

If using multiple speakers, you may need to wire them in series or parallel.

For a 16-ohm speaker:

- **Parallel connection:** Reduces the total impedance. For example, two 16-ohm speakers in parallel create an 8-ohm load.
- **Series connection:** Increases the total impedance. Two 16-ohm speakers in series result in a 32-ohm load.

 Ensure that the total impedance matches your amplifier's output capacity to avoid overloading or underutilizing the amplifier.



## 7. INSTALLATION & OPERATION

In the packing of eMOTU5016, you will find all that is needed to complete installation of the unit.

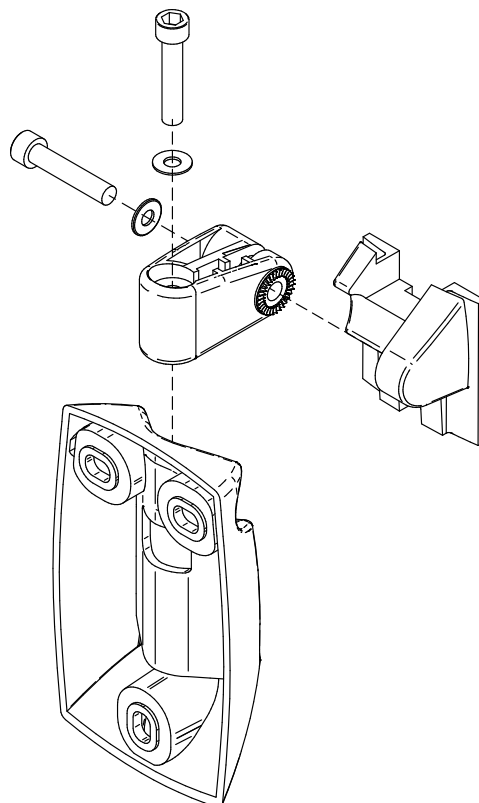


The following should be observed as general rules:

- Always install on solid, firm surfaces.
- For good sound reproduction, there should be no hindrance between the units and the audience.
- Adjust the levels of sound pressure to reproduction requirements. Despite its small size, the eMOTUS5016 has a performance far higher than that of domestic loudspeakers.

### Procedure for installing on a surface:

1. Make three 6 mm drill holes in the wall, lining them up with the position of the holes in the bracket.
2. Insert three 6 mm wall plugs in these holes.
3. Fasten the safety line on the back of the bracket.
4. Place the bracket in position, after first passing the line and the loudspeaker cable through the square hole on the bracket. Fix the bracket to the wall.



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5. Connect the loudspeaker cable to the connector on the rear part of the box, using the Euroblock connector supplied.

 **Ensure the correct polarity of the terminals and that the cable goes through the square hole in the bracket.**

 **It is advisable to place the protective housing supplied when the loudspeaker is installed outdoors.**

6. Place the acoustic box in its final position, vertically sliding it downward so that the rail on its rear side fits with the bracket rail.

 **Fasten the safety cable on the rear part of the acoustic box, to avoid it accidentally falling and causing material and/or personal damage.**

7. Orientate the box to obtain the required position on the vertical and horizontal axes. Tighten the Allen screws on the bracket to fix said position on both axes.



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## 8. TECHNICAL DATA

### 8.1 Technical Specifications

#### eMOTUS5016

System	
Effective frequency range <sup>1</sup>	80Hz-20kHz (-10dB)
Coverage angle <sup>2</sup>	150° x 150° (HxV)
Power handling	40 W RMS / 160 W Peak
Sensitivity <sup>3</sup>	86dB (1W/1m)
Maximum SPL <sup>4</sup>	102dB continuous / 108dB peak
Power options	16 Ω
Recommended amplifier power	80 W RMS
Transducers	
Ways	2-ways full range
Low frequency driver	5" woofer
High frequency driver	1" coaxial tweeter
Nominal impedance	16Ω
Physical	
Connection type	2-terminal Euroblock connector (Input)
Installation options	Surface (wall mount), desktop
Environmental	IP65 rated
Enclosure material	ABS plastic
Grille material	Aluminium
Mounting system	ABS bracket
Operating temperature	Min: -20°C ; -4°F Max: 70°C ; 158°F
Operating humidity	<85% HR
Storage temperature	Min: -20°C ; -4°F Max: 70°C ; 158°F
Storage humidity	<90% HR
Included accessories	Wall-mount bracket, adhesive legs, back rubber cover & security steel cable
Finished colour	White (RAL 9003) or black (RAL 9005)
Dimensions (WxHxD)	173 x 180 x 180 mm / 6.81 x 7.09 x 7.09 in.
Weight	1.75kg. / 3.86 lb.
Pieces per box	2
Shipping dimensions (WxHxD)	230 x 220 x 460 mm / 9.01 x 9.67 x 18.11 in.
Shipping weight	4.5 kg / 9.92 lb

<sup>1</sup>10dB below the sound pressure level at specified sensitivity

<sup>2</sup>6dB below the sound pressure level than that at the direction of maximum level. Max. angle between 1 kHz and 4 kHz.

<sup>3</sup>Measured on-axis, 2,83V, far field and referenced to 1 meter by inverse square law. Average from 100 Hz to 10 kHz.

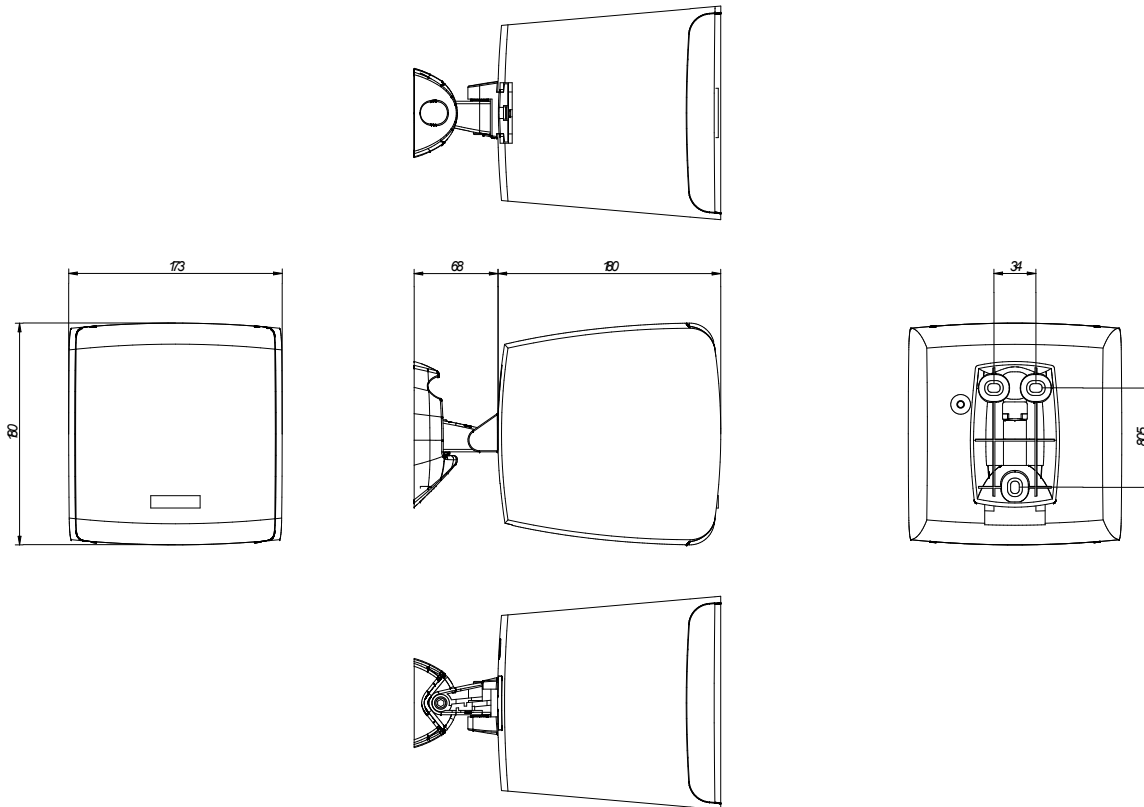
<sup>4</sup>Calculated from sensitivity and power handling specifications, exclusive of power compression

## 8.2 Mechanical Diagram

All measurements are in mm.



### Ecler eMOTUS50D Mechanical Diagram



61-1073-0100

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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.

For technical queries contact your supplier, distributor or complete the contact form on our website, in [Support / Technical requests](#).

Motors, 166-168 | 08038 Barcelona, Spain | Tel. (+34) 932238403 | [information@ecler.com](mailto:information@ecler.com) | [www.ecler.com](http://www.ecler.com)