

AMBIT-13

LOUDSPEAKERS

Commercial Loudspeakers



USER MANUAL



- PRECAUTIONS
- WARRANTY & ENVIRONMENT
- PACKAGE CONTENTS
- DESCRIPTION & FEATURES
- CONNECTONS
- RECOMMENDED AMPLIFIER
- PLACEMENT & MOUNTING
- TECHNICAL DATA

TABLE OF CONTENTS

1. PRECAUTIONS	3
1.1 <i>Important Notice</i>	3
1.2 <i>Key Safety Directions</i>	4
1.3 <i>Cleaning Directions</i>	4
2. WARRANTY & ENVIRONMENT	5
3. PACKAGE CONTENTS	5
4. DESCRIPTION & FEATURES	6
4.1 <i>Main Features</i>	7
5. CONNECTIONS	8
6. RECOMMENDED AMPLIFIER	9
7. PLACEMENT & MOUNTING	9
8. TECHNICAL DATA	11
8.1 <i>Technical Specifications</i>	11
8.2 <i>Mechanical Diagram</i>	12


PRECAUTIONS
WARRANTY & ENVIRONMENT
PACKAGE CONTENTS
DESCRIPTION & FEATURES
CONNECTIONS
RECOMMENDED AMPLIFIER
PLACEMENT & MOUNTING
TECHNICAL DATA

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.

	PRECAUTIONS
	WARRANTY & ENVIRONMENT
	PACKAGE CONTENTS
	DESCRIPTION & FEATURES
	CONNECTORS
	RECOMMENDED AMPLIFIER
	PLACEMENT & MOUNTING
	TECHNICAL DATA

1.2 Key Safety Directions

1. Read the following directions.
2. Keep the following directions.
3. Observe all warnings.
4. Follow all instructions.
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, with one being 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 lightning storms or when unused for long periods.
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 top, rear or 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.


PRECAUTIONS
WARRANTY & ENVIRONMENT
PACKAGE CONTENTS
DESCRIPTION & FEATURES
CONNECTIONS
RECOMMENDED AMPLIFIER
PLACEMENT & MOUNTING
TECHNICAL DATA

2. WARRANTY & ENVIRONMENT

**Thank you for choosing our Ecler AMBIT-13!
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 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 CO₂ 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

- 2x AMBIT-13
- 2x brackets.
- 1x Allen key.
- Miscellaneous screws and rawlplugs for the wall.
- 2x Safety steel strips.
- 1x First Steps Guide.
- 1x Warranty card.



PRECAUTIONS

WARRANTY & ENVIRONMENT

PACKAGE CONTENTS

DESCRIPTION & FEATURES

CONNECTIONS

RECOMMENDED AMPLIFIER

PLACEMENT & MOUNTING

TECHNICAL DATA

4. DESCRIPTION & FEATURES

AMBIT-13 is an ultra- compact 2-way coaxial loudspeaker cabinet with neutral and discreet design. It features a 3.5" woofer and a 0.5" tweeter and it is suitable for low and high impedance lines. It is ready for indoor and outdoor applications, thanks to its aluminium grill and UV protection treatment (IP54-rated). Wall mount accessories and safety sling are included for an easy and secure installation.

The AMBIT range is more than just a line of acoustic cabinets for sound reproduction. AMBIT is the outcome of a study on the present and immediate future needs with respect to background music and announcements. Stores, large mall centres, schools, conference halls, hotels, industries, offices, museums, meeting rooms, hospitals, games areas... are just some of the most obvious places in which the AMBIT line can be directly applied. However, the Ecler design group has decided to go even further and, fully aware of the great variety of areas and situations in which acoustic cabinets can be used, has finally managed to fulfill the desires of the increasingly demanding installers and decorators:

- **A series of discreet cabinets that will go unnoticed**, blending into their surroundings. In this sense, the special shape of the AMBIT Series, with their rear parts in the shape of a cut off pyramid, enables the box to be installed flush with the wall in corner assemblies. Also, the box looks a lot smaller from the front than it actually is, as the back part is hidden from view.
- **A unique product. No other similar box exists.** The design is an exclusive Ecler design that is out of the ordinary, distinctive and, what is even more important, extremely adaptable to all kinds of situations. A two-way system with a treble loudspeaker that is concentric with the medium bass loudspeaker. The result is a square box that can be mounted in the most suitable position in terms of operation and aesthetics.
- **Configurable.** The AMBIT Series models have a switch that enables the cabinet to be configured depending on the purpose for which it is to be used. All the cabinets operate at high or low impedance and in this case, at different powers. Simple, fast and versatile.
- **The AMBIT packaging contains everything you need to anchor the boxes in the required position.** Each cabinet has two built-in guides on each of its 4 back sides, which, in combination with the U-bracket included, enables it to be placed in any position and direction. Allen wrenches, safety sling, safety screw; you will find everything included in each pair of AMBIT boxes to make them easy and quick to install.
- **The versatility of these cabinets together with a large program of mechanical accessories make it possible to install systems by grouping together** from two to as many boxes as are necessary to deal with virtually every need related to the reproduction of ambient music and announcement broadcasting.



PRECAUTIONS

WARRANTY & ENVIRONMENT

PACKAGE CONTENTS

DESCRIPTION & FEATURES

CONNECTIONS

RECOMMENDED AMPLIFIER

PLACEMENT & MOUNTING

TECHNICAL DATA

- **Reliability and Quality above all, AMBIT cabinets have a surprisingly good quality in terms of sound considering their dimensions.** This is possible thanks to their special shape, which enables a higher volume to be achieved than what could be imagined. A power capacity of 25W RMS and 87dB SPL at 1W 1m is difficult to equal in enclosures with the same features and price.

4.1 Main Features

- ABS 2-way, 25 WRMS architectural loudspeaker.
- 3.5" woofer / 0.5" Tweeter.
- Built-in audio transformer for 100V applications.
- 8Ω and 70/100V operation selector.
- Includes on-wall hardware, safety sling, screws and wrench for fast installation.
- Available in black (RAL9005) and white (RAL9016) colours.
- Spring loaded input terminals.
- IP54 rated.
- Anti UV cabinet avoids colour degradation in case of direct sunlight exposition.
- **EASE files available**



PRECAUTIONS

WARRANTY & ENVIRONMENT

PACKAGE CONTENTS

DESCRIPTION & FEATURES

CONNECTIONS

RECOMMENDED AMPLIFIER

PLACEMENT & MOUNTING

TECHNICAL DATA

5. CONNECTIONS

AMBIT-13 admits operation as high or low impedance. A 5-position switch is located at the back of the speaker and allows the selection of the operating mode.

The first 4 switch positions are to be used in conjunction with a 100V line. Using a 100V speaker distribution system has various advantages regarding installation flexibility. First, different types of loudspeakers (different power handling or impedance) can be used simultaneously as required in different zones. On the other hand, the 100V line system minimizes power loss due to cable resistance, as usually long cable runs are required in large installations.



AMBIT-13, has 4 power handling levels for the 70/100V lines. Depending on the intended use, the speaker output can be attenuated more or less. **In the zones where sound intensity should be low, place the switch in the 2.5W or 5W position. If sound intensity should be high, place the switch at 7.5W/15W.**

The **8Ω position corresponds to low impedance operation with a maximum power capacity of 25W RMS**. When operating at low impedance you should always consider the limitations of the power amp when connecting several low-impedance speakers together. Impedances lower than 4Ω should be avoided. At low impedance operation and with long cable runs, the cables between the amplifier and the speakers should be as short as possible and have good quality.



All connections are on spring-loaded terminals.



Always respect polarity.



AMBIT-13 is shipped from factory with the switch in 100V/15W position. If it is connected to a low-impedance amplifier, the speaker will not be damaged but will perform way below its full potential. **If the speaker is accidentally connected to a 100V line in the 8Ω /25W position, it will be severely damaged.**



PRECAUTIONS

WARRANTY & ENVIRONMENT

PACKAGE CONTENTS

DESCRIPTION & FEATURES

CONNECTIONS

RECOMMENDED AMPLIFIER

PLACEMENT & MOUNTING

TECHNICAL DATA

6. RECOMMENDED AMPLIFIER

The output power of the **recommended amplifier for AMBIT-13 is 50W RMS.**

7. PLACEMENT & MOUNTING

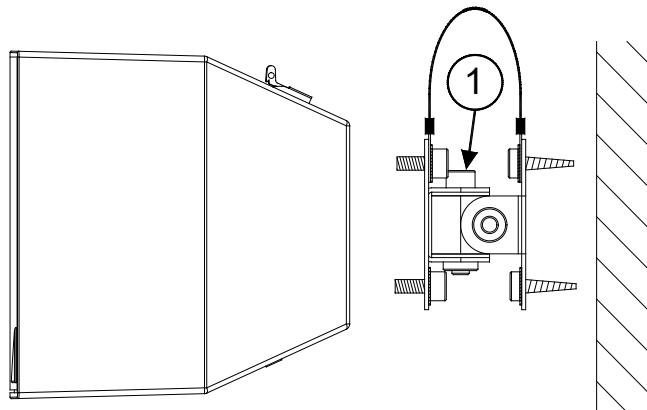
! Consider following general rules:

- Place the acoustic enclosures on solid and firm surfaces.
- No obstacles should stand between the enclosures and the audience.
- Although the speakers can be used outdoors, they should not be directly exposed to sunlight or rain.
- Always adjust the output sound pressure levels to the reproduction requirements. Despite their small size, they can produce significantly higher-pressure levels than home speakers.

The two rails found on each of the four back sides of the AMBIT Series allow several installation positions. Speaker cables can be hidden from view by choosing an adequate mounting orientation.

💡 Although the inconspicuous AMBIT logo suggests mounting the unit with the input connectors on the upside and the selector switch on the downside, **the enclosure can be mounted in any orientation because the high frequency driver is concentric, and the adhesive logo can be positioned anywhere.**

The following diagram illustrates the installation of the AMBIT-13 using the supplied accessory, allowing vertical or horizontal orientation.



! As a general safety rule, remember to put the safety sling in place and also that the screw marked “1” should be placed at the upper part of the support, so that if it becomes loose, it will not fall.

Alternative installation options:

- The AMBIT-13 has 4 nuts inserted in the rear at a standard diagonal distance of 60mm, to permit the safety sling screw to be housed and to be coupled to a standard bracket.
- Ecler offers a wide range of mechanical accessories that can be used to group several AMBIT, thus enhancing their versatility even more. Please refer to your Ecler distributor or visit www.ecler.com for all existing possibilities.



PRECAUTIONS

WARRANTY
&
ENVIRONMENT

PACKAGE
CONTENTS

DESCRIPTION
&
FEATURES

CONNECTORS

RECOMMENDED
AMPLIFIER

PLACEMENT
&
MOUNTING

TECHNICAL
DATA

8. TECHNICAL DATA

8.1 Technical Specifications

AMBIT-13

System	
Effective frequency range ¹	120 Hz-22 kHz
Coverage angle ²	180° H x 180° V
Continuous Power handling ³	25W
Program Power Handling ⁴	50W
Peak Power Handling ⁵	100W
On-axis Sensitivity ⁶	87dB
Maximum SPL ⁷	101dB continuous / 107dB peak
Power options	100V: 15W / 7,5W / 5W / 2,5W / 8Ω 70V: 7,5W / 5W / 2,5W / 1,25W / 8Ω
Recommended amplifier power	50W RMS
Transducers	
Ways	2-ways full range
Low frequency driver	3,5" Woofer
High frequency driver	0,5" Tweeter
Nominal impedance	8Ω
Physical	
Connection type	Spring loaded input terminals
Installation options	Surface, Ceiling, Corner (wall mount)
Enclosure material	ABS plastic
Environmental	IP54 rated
Grill material	Aluminium
Mounting system	Wall 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	Includes on-wall hardware, safety sling, screws and wrench for fast installation, and waterproof rubber cover for connectors
Finished colour	White (RAL 9016) or black (RAL 9005)
Dimensions (WxHxD)	120 x 120 x 117 mm / 4.72 x 4.72 x 4.61 in.
Weight	1.275 kg / 2.81 lb.
Pieces per box	2
Shipping dimensions (WxHxD)	300 x 170 x 210 mm / 11.81 x 6.69 x 8.27 in.
Shipping weight	1.45 kg / 3.2 lb.

⁽¹⁾ Measured frequency range within -10dB of the 1kHz octave band level, according to IEC 60268-5.

⁽²⁾ Beamwidth defined at -6 dB relative to the on-axis sound pressure level, using the maximum value within the 1kHz to 4kHz range.

⁽³⁾ RMS input power applied via IEC shaped band-limited pink noise for 2 hours, per AES2 power handling standard.

⁽⁴⁾ Conventionally 3 dB higher than the RMS measure, intended to represent real music signals.

⁽⁵⁾ Corresponds to the signal crests for the test described in (3).

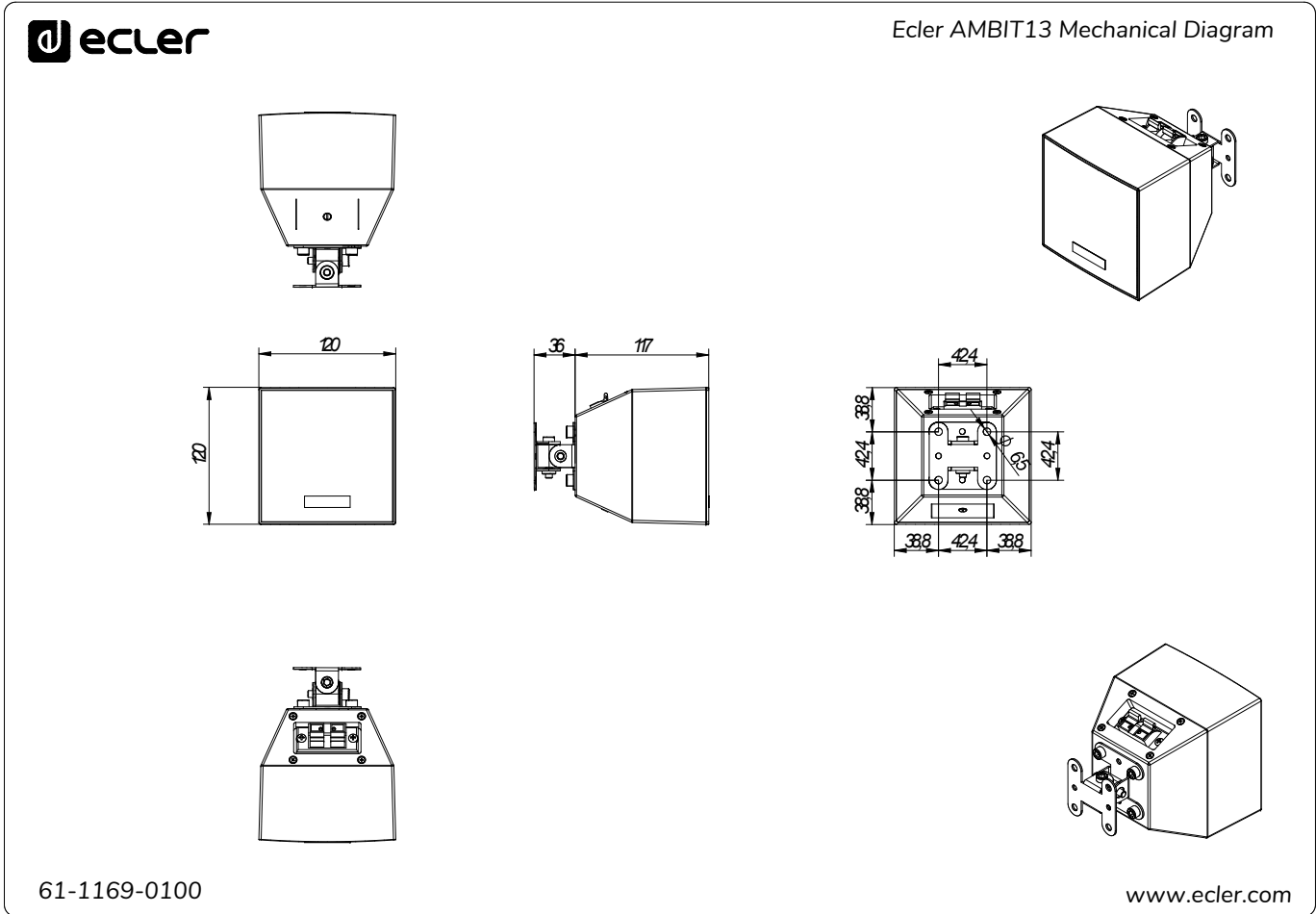
⁽⁶⁾ Sound pressure level at 1m with 1W input at nominal impedance under half-space radiation conditions.

⁽⁷⁾ Calculated.


PRECAUTIONS
WARRANTY & ENVIRONMENT
PACKAGE CONTENTS
DESCRIPTION & FEATURES
CONNECTIONS
RECOMMENDED AMPLIFIER
PLACEMENT & MOUNTING
TECHNICAL DATA

8.2 Mechanical Diagram

All measurements are in mm.



All the measurements are in mm

PRECAUTIONS
WARRANTY & ENVIRONMENT
PACKAGE CONTENTS
DESCRIPTION & FEATURES
CONNECTORS
RECOMMENDED AMPLIFIER
PLACEMENT & MOUNTING
TECHNICAL DATA


PRECAUTIONS
WARRANTY & ENVIRONMENT
PACKAGE CONTENTS
DESCRIPTION & FEATURES
CONNECTONS
RECOMMENDED AMPLIFIER
PLACEMENT & MOUNTING
TECHNICAL DATA