IC Series

LOUDSPEAKERS

In-ceiling / In-wall Loudspeaker

USER MANUAL

INDEX

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 (If applicable): The terminals marked with symbol of "⚡" may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.

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 lightening 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 are the owner of a carefully designed and manufactured equipment. We thank you for trusting in us and choosing our IC-series speaker for false ceilings.

In order to get the optimum operation and efficiency from this unit, it is VERY IMPORTANT - before you plug anything - to read this manual very carefully and bear in mind all considerations specified within it. We strongly recommend that its maintenance be carried out by our Authorized 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.

4. INTRODUCTION

ECLER's line of IC speakers for false ceilings incorporates carefully selected components in an easy-to-use design that is quick to install. They also provide excellent sound quality for high and low thanks to our infinite speaker philosophy and to top-performance high frequency transducer.

Because we have included a transformer in the whole series, our units are extremely versatile and are easy to use both in applications with low impedance and in applications running at 100V/70V. All you have to do is shift the position of the built-in selector.

The transducers used to play low and medium frequencies are made of polypropylene, giving them maximum, long-term stability and protecting them from environmental factors like heat and humidity.

There are three models in the IC series: IC3, IC6 and IC8. Here, we will describe the technical specifications of each of these models:

4.1 IC3

- 1 way speaker for false ceilings
- 3” polypropylene woofer
- Power: 10W RMS@8Ω
- Sensitivity (1W/1m): 90 dB SPL
- Built-in transformer.
- External diameter: 105mm

- Cut out diameter: 90mm
- Available in black (RAL9004) or white (RAL9003) finish
- Installation system: spring clips (installation without tools)

4.2 IC6

- 2 way speaker for false ceilings
- 6” polypropylene woofer
- 25mm tweeter
- Power: 40W RMS@8Ω
- Sensitivity (1W/1m): 88 dB SPL
- Built-in transformer.
- External diameter: 204mm
- Cut out diameter: 180mm
- Available in black (RAL9005) or white (RAL9010) finish
- Installation system: Three revolving fasteners

4.3 IC8

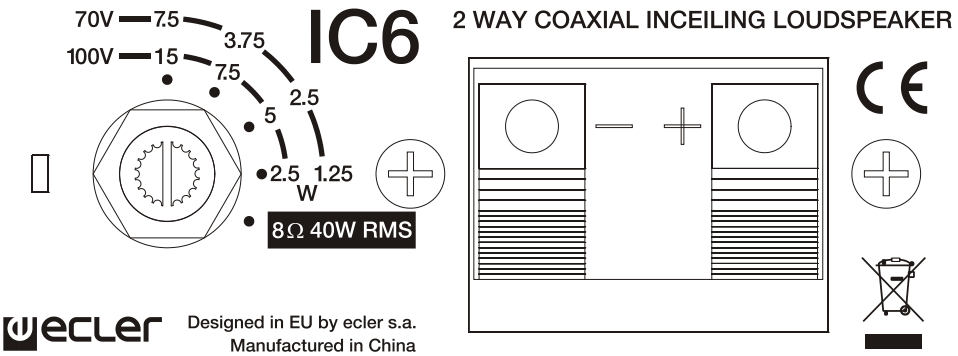
- 2 way speaker for false ceilings
- 8” polypropylene woofer
- 25mm tweeter
- Power: 60W RMS@8Ω
- Sensitivity (1W/1m): 89 dB SPL
- Built-in transformer.
- External diameter: 245mm
- Cut out diameter: 222mm
- Available in white (RAL9010) finish
- Installation system: Three revolving fasteners

Note: If you use the speaker for false ceiling in 70V installations, the power for the 100V position will be half the amount shown on the switch. When used in 50V installations, it will be a fourth of the amount.

Each model in the series comes with a protective grill that can be removed with a hook included in the package. Be careful not to damage the speaker when removing the grill.

5. CONNECTIONS

The connection terminals for models IC6 and IC8 are of the pressure clamp type for bare cable. Once connected, just select the mode and working power of the unit with a simple screwdriver. Always respect the polarity.



IC6 Connection plate

In the IC3 model, the connection terminals are screw-type terminal blocks. Connect the cables as follows:

- Between "0" and "8 / 10W" terminals (negative and positive, respectively) if your amplifier is of low impedance
- Between the "COM" terminals and "6W or 3W or 1.5W @ 100V" (negative and positive, respectively) if your amplifier is of high impedance, thus directly selecting a working power for the IC3 unit

The IC series are shipped from factory with the switch in 100V/70V 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/70V line in the 8Ω position, it will be severely damaged.

The installation of each unit is easily carried out using the 3 rotating tabs incorporated in models IC6 and IC8, and spring clamps in model IC3. For more information on the installation method, see section 5 of this manual.

6. LOCATION AND ASSEMBLY

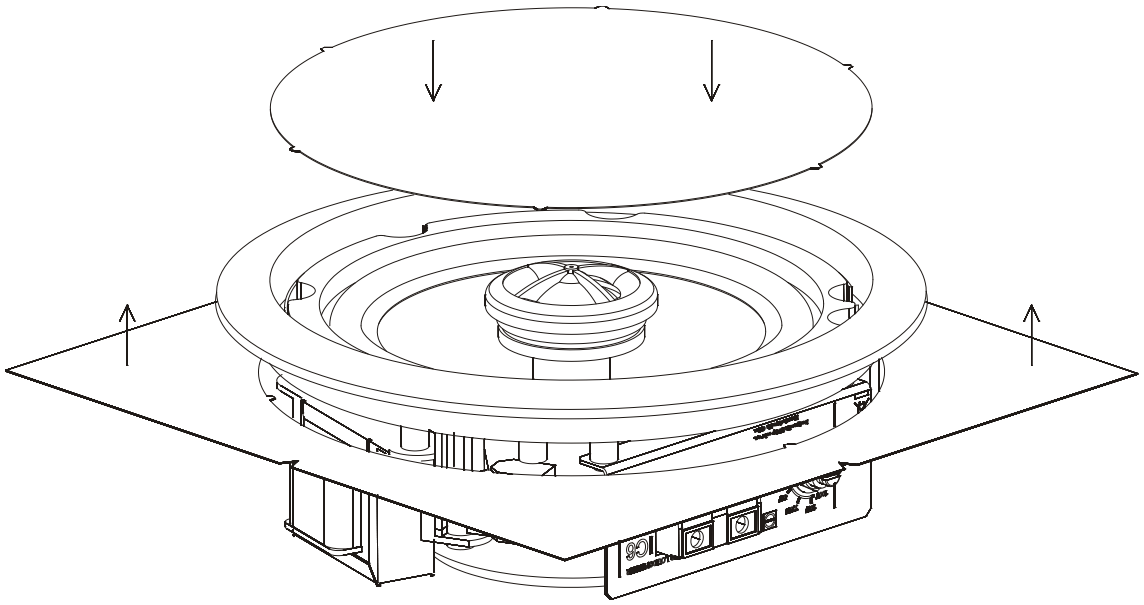
To install this product correctly, you must be prepared to cut circular holes where you would like to place the speakers and have the wiring necessary for each unit.

In order to install the speakers correctly:

1. Remove the protective grating from the speaker using the hook provided in the packaging.
2. Cut a circular hole in the false ceiling: A template for cutting/painting is included with each unit to simplify this process. Once the unit is separated into two parts, the outside part can be used as a template to make the hole in the ceiling, and the inner disk can be used to protect the speaker cone if you would like to paint the plastic another colour.
3. Use the clamps to connect the unit to the wiring of the system where the speaker is being installed.
4. Place the speaker in the newly cut hole. Hold it in place with your hand and push it into place, all the while making sure that the three revolving fasteners are drawn back.
5. Press each of the three screws that are accessible from the front side of the speaker. The speaker is now fixed in its final position.
6. Reattach the protective grille.

7. PAINTING

The IC series is designed to be painted, meaning it can be installed anywhere, regardless of the aesthetic criteria of the place where it will be used.



In order to paint any of the models in the product line:

1. Remove the protective grating from the speaker using the hook provided in the packaging.
2. Once the cut/paint template has been separated into two parts, use the inside disk to protect the speaker cone. Place it tight on the cone. The points still on disk after it has been separated help to fix it tight into place. The outside part of the template can be put on the back part of the speaker, lining it up with the plastic circle, to protect the back part from splattering if you are using spray paint.
3. Paint the protective grating and the speaker separately. Make sure that the small holes in the grating are not blocked by paint. Use an appropriate air-dry paint.
4. When the paint is dry, remove the protectors. The unit is ready to be installed.

8. TECHNICAL CHARACTERISTICS

IC3

System	
Effective frequency range[1]	110 Hz – 20 kHz (-10dB)
Coverage angle[2]	147°
Power handling	10W RMS / 40W Peak
Sensitivity[3]	86dB (1W/1m)
Maximum SPL[4]	96dB continuous / 102dB peak
Power options	100V: 1,5 / 3 / 6 W and 8 ohm
	70V: 0,75 / 1,5 / 3 W and 8 ohm
Recommended amplifier	20W
Transducers	
Driver	3'' woofer
Nominal impedance	8Ω
Physical	
Connection type	Terminal block
Installation options	In-ceiling, in-wall
Grille material	Aluminium rust proof
Mounting system	Spring clips (installation without tools)
Finished color	Black (RAL 9004) or White (RAL 9003)
External diameter	100mm / 3.94"
Internal diameter	85mm / 3.35"
Recommended cut out diameter	85mm / 3.35"
Required depth	95mm / 3.74"
Ceiling thickness	No limit min
	50mm / 1.96" max
Weight	0,5 kg. / 1.10 lb.
Pieces per box	2 units
Shipping dimensions(WxHxD)	120 x 130 x 230mm / 4.7" x 5.1" x 9.0"
Shipping weight	0,6 kg. / 4.18 lb

IC6

System	
Effective frequency range[1]	75 Hz – 20 kHz (-10dB)
Coverage angle[2]	145°
Power handling	40W RMS / 160W Peak
Sensitivity[3]	93dB (1W/1m)
Maximum SPL[4]	109dB continuous / 115dB peak
Power options	100V: 2,5 / 5 / 7,5 / 15W
	70V: 1,25 / 2,5 / 3,75 / 7,5W
Recommended amplifier	80W
Transducers	
Ways	2-way, full range
Low Frequency Driver	6.5'' woofer
High Frequency Driver	1" tweeter
Nominal impedance	8Ω
Physical	
Connection type	Clip-type input terminals
Installation options	In-ceiling, in-wall
Grille material	Aluminium rust proof
Mounting system	3 rotating tabs
Finished color	Black (RAL 9005) or White (RAL 9010)
External diameter	204mm / 8.03"
Internal diameter	178mm / 7.00"
Recommended cut out diameter	180mm / 7.40"
Required depth	>73mm / 2.87"
Ceiling thickness	5mm / 0.19" min
	20mm / 0.78" max
Weight	1,5 kg. / 3.30 lb.
Pieces per box	2 units
Shipping dimensions(WxHxD)	240 x 250 x 220mm / 9.4" x 9.8" x 8.66"
Shipping weight	1,90 kg. / 4.18 lb.

IC8

System	
Effective frequency range[1]	65 Hz - 20 kHz (-10dB)
Coverage angle[2]	136°
Power handling	60W RMS / 240W Peak
Sensitivity[3]	94dB (1W/1m)
Maximum SPL[4]	112dB continuous / 118dB peak
Power options	100V: 5 / 7,5 / 15 / 30W
	70V: 2,5 / 3,75 / 7,5 / 15W
Recommended amplifier	120W
Transducers	
Ways	2-way, full range
Low Frequency Driver	8'' woofer
High Frequency Driver	1" tweeter
Nominal impedance	8Ω
Physical	
Connection type	Clip-type input terminals
Installation options	In-ceiling, in-wall
Grille material	Aluminium rust proof
Mounting system	3 rotating tabs
Finished color	White (RAL 9010)
External diameter	245mm / 9.64"
Internal diameter	219mm / 8.62"
Recommended cut out diameter	222mm / 8.74"
Required depth	91mm / 3.58"
Ceiling thickness	5mm / 0.19" min
	20mm / 0.78" max
Weight	2,3 kg. / 5.07 lb.
Pieces per box	2 units
Shipping dimensions(WxHxD)	290 x 290 x 260mm / 11.41" x 11.41" x 10.23"
Shipping weight	2,60 kg. / 5.73 lb.

[1]10dB below the sound pressure level at specified sensitivity

[2]6dB below the sound pressure level than that at the direction of maximum level, Max. angle between 1 kHz and 4 kHz.

[3]Measured on-axis, far field and referenced to 1 meter by inverse square law. Average from 100 Hz to 10 kHz.

[4]Calculated from sensitivity and power handling specifications, exclusive of power compression

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.

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