USER MANUAL
MANUALE D'USO

M 501 - M 601 - M 801
M 502 - M 602

- 'MEDIA' SERIES LOUDSPEAKERS
- DIFFUSORI ACUSTICI DELLA SERIE "MEDIA"

RCF

SAFETY AND OPERATING PRECAUTIONS

IMPORTANT NOTES
Before connecting and using this product, please read this instruction manual carefully and keep it on hand for future reference. This manual is to be considered an integral part of this product and must accompany it when it changes ownership as a reference for correct installation and use as well as for the safety precautions. RCF S.p.A. will not assume any responsibility for the incorrect installation and / or use of this product.

WARNING: To prevent the risk of fire or electric shock, never expose this loudspeaker to rain or humidity and also dust.

SAFETY AND OPERATING PRECAUTIONS
1. All the precautions, in particular the safety ones, must be read with special attention, as they provide important information.

2. Loudspeaker lines (amplifier outputs) can have a sufficiently high voltage to involve a risk of electrocution: never install or connect this loudspeaker when amplifiers are switched on.

3. Make sure all connections have been made correctly and the loudspeaker input impedance is suitable for the amplifier output.

4. Protect loudspeaker lines from damage; make sure they are positioned in a way that they cannot be stepped on or crushed by objects.

5. Make sure that no objects or liquids can get into this product, as this may cause a short circuit.

6. Never attempt to carry out any operations, modifications or repairs that are not expressly described in this manual.
Contact your authorized service centre or qualified personnel should any of the following occur:
- The loudspeaker does not function (or works in an anomalous way).
- The cable has been damaged.
- Objects or liquids are inside the loudspeaker.
- The loudspeaker has been damaged due to heavy impacts or fire.

7. Should the loudspeaker emit any strange odours or smoke, remove it from the line after having immediately switched the amplifier off.

8. Do not connect this product to any equipment or accessories not foreseen.
For suspended installation, only use the dedicated anchoring points and do not try to hang this loudspeaker by using elements that are unsuitable or not specific for this purpose.
Also check the suitability of the support surface to which the product is anchored (wall, ceiling, structure, etc.), and the components used for attachment (screw anchors, screws, brackets not supplied by RCF etc.), which must guarantee the security of the system / installation over time, also considering, for example, the mechanical vibrations normally generated by transducers.

9. RCF S.p.A. strongly recommends this product is only installed by professional qualified installers (or specialised firms) who can ensure a correct installation and certify it according to the regulations in force.
The entire audio system must comply with the current standards and regulations regarding electrical systems.

IMPORTANT

WARNING

10. Mechanical and electrical factors need to be considered when installing a professional audio system (in addition to those which are strictly acoustic, such as sound pressure, angles of coverage, frequency response, etc.).

11. Hearing loss
Exposure to high sound levels can cause permanent hearing loss. The acoustic pressure level that leads to hearing loss is different from person to person and depends on the duration of exposure.
To prevent potentially dangerous exposure to high levels of acoustic pressure, anyone who is exposed to these levels should use adequate protection devices.
When a transducer capable of producing high sound levels is being used, it is necessary to wear ear plugs or protective earphones.
See the technical specifications in the instruction manual for the maximum sound pressure the loudspeaker is capable of producing.

12. To ensure a correct sound reproduction, loudspeaker phase is to be respected (loudspeakers are connected respecting the amplifier polarity). This is important when loudspeakers are installed adjacent one another, for instance, in the same room.

13. To prevent inductive effects from causing hum, noise and a bad system working, loudspeaker lines should not be laid together with other electric cables (mains), microphone or line level signal cables connected to amplifier inputs.

14. The loudspeaker cable shall have wires (twisted, if possible, to reduce inductive effects due to surrounding electro-magnetic fields) with a suitable section and a sufficient electrical insulation. Refer to local regulations since there may be additional requirements about cable characteristics.

15. Do NOT connect the loudspeaker low impedance (8 Ω) input to 100 V constant voltage lines.

16. Install this loudspeaker far from any heat source.

17. Do not overload the loudspeaker with too much power.

18. Do not use solvents, alcohol, benzene or other volatile substances for cleaning the external parts of this product. Use a dry cloth.

RCF S.P.A. THANKS YOU FOR PURCHASING THIS PRODUCT, WHICH HAS BEEN DESIGNED TO GUARANTEE RELIABILITY AND HIGH PERFORMANCE.

DESCRIPTION

The new 'Media' series includes a wide range of high quality 2-way passive loudspeakers for fixed installations and is the ideal solution for small to medium size projects.

This manual covers 5 models:
- **M 501** two-way loudspeaker, 5.5" woofer and 1" driver
- **M 601** two-way loudspeaker, 6.5" woofer and 1" driver
- **M 801** two-way loudspeaker, 8" woofer and 1" driver
- **M 502** two-way loudspeaker, two 5.5" woofers and 1" driver
- **M 602** two-way loudspeaker, two 6.5" woofers and 1" driver.

Models with the **-W** suffix in their name (i.e. **M 501-W**) are painted in white (instead of black).

All loudspeakers are equipped with a high power handling 'Low Impedance Compensated Crossover', having an electronic protection for the driver.

The front grilles are made of steel with a robust double mesh polyester cloth.
The front RCF logo is easily rotatable.

Installation points are available on the rear panel, top and bottom.

All models have a 4-pin EUROBLOCK connector (audio input and parallel link output).

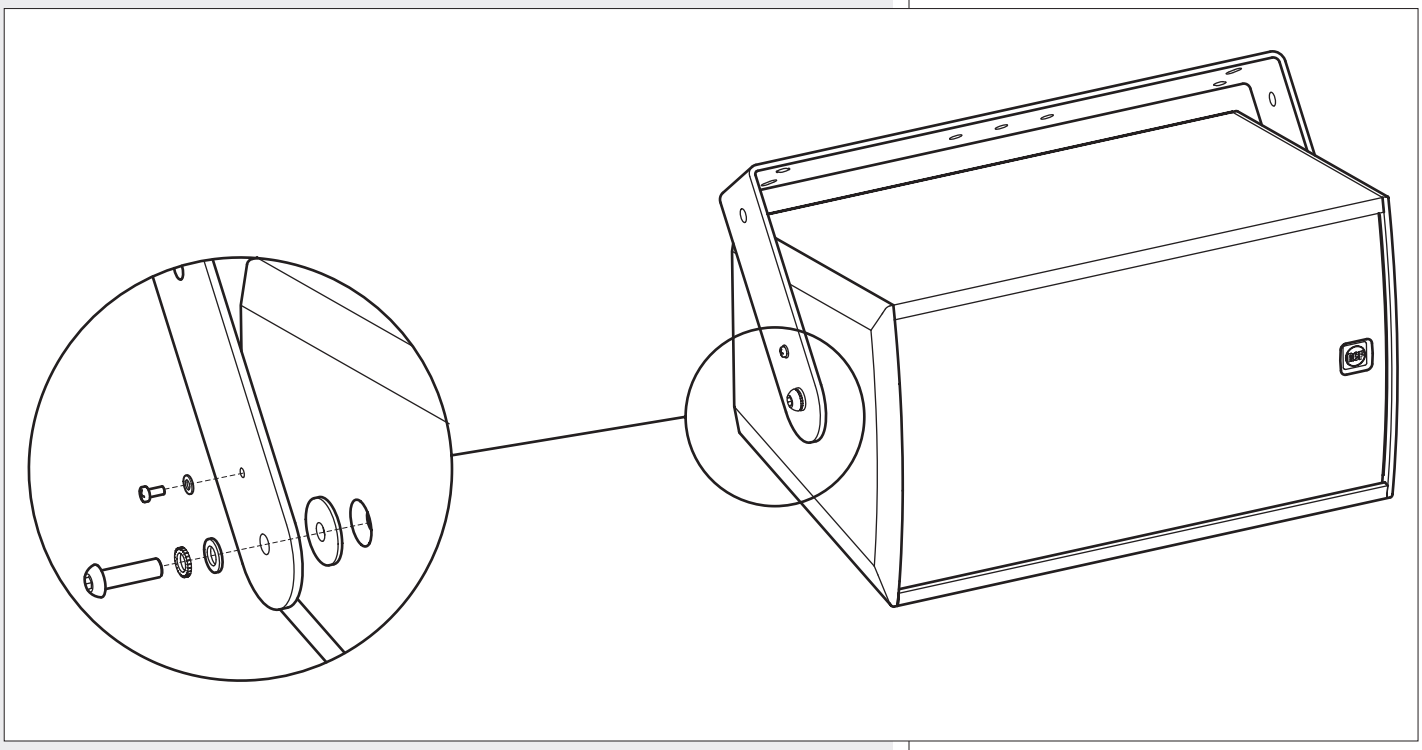
INSTALLATION

Loudspeakers are to be install by qualified personnel, respecting all safety standards.
Loudspeakers are to be installed securely.
Make sure the support structure (walls / ceilings) has the necessary mechanical characteristics for the loudspeaker weight, without the risk of a fall that could damage things or cause an injury.
Use attachments elements suitable for walls / ceilings (e.g. wall plugs for bricks, for concrete, etc.).

a) HORIZONTAL MOUNTING WITH U BRACKET

Necessary optional accessory:
- **AC M501 H-BR (for the M 501 model)**
- **AC M601 H-BR (for the M 601 model)**
- **AC M801 H-BR (for the M 801 model)**
- **AC M502 H-BR (for the M 502 model)**
- **AC M602 H-BR (for the M 602 model).**

Fix the U bracket to the wall / ceiling through at least 4 lateral wall plugs (max. M8) plus a central one (max. M10).
Mount the U bracket to the loudspeaker by tightening the two M10x35 bolts into the holes of the loudspeaker top and bottom, as shown in the figure below.



Before tightening the two M10 bolts, adjust the loudspeaker vertical tilt and then fix it through two M4.2x22 self-threading screws (passing through the small hole of the U bracket) directly into the loudspeaker cabinet wood.

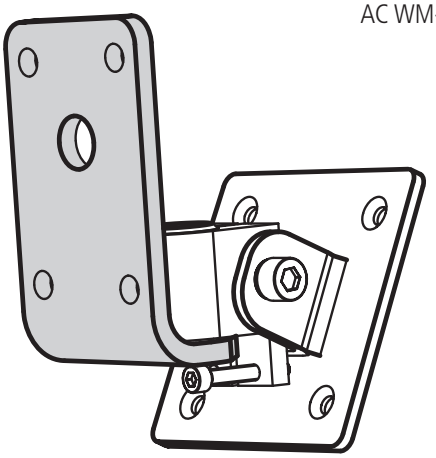
NOTE: DO NOT TILT THE LOUDSPEAKER UPWARDS!
INSTEAD OF SIMPLE M10 BOLTS, IT IS POSSIBLE TO USE THE INCLUDED KNOBS (HAVING M10 BOLTS).

B) MOUNTING WITH A SWIVEL BRACKET

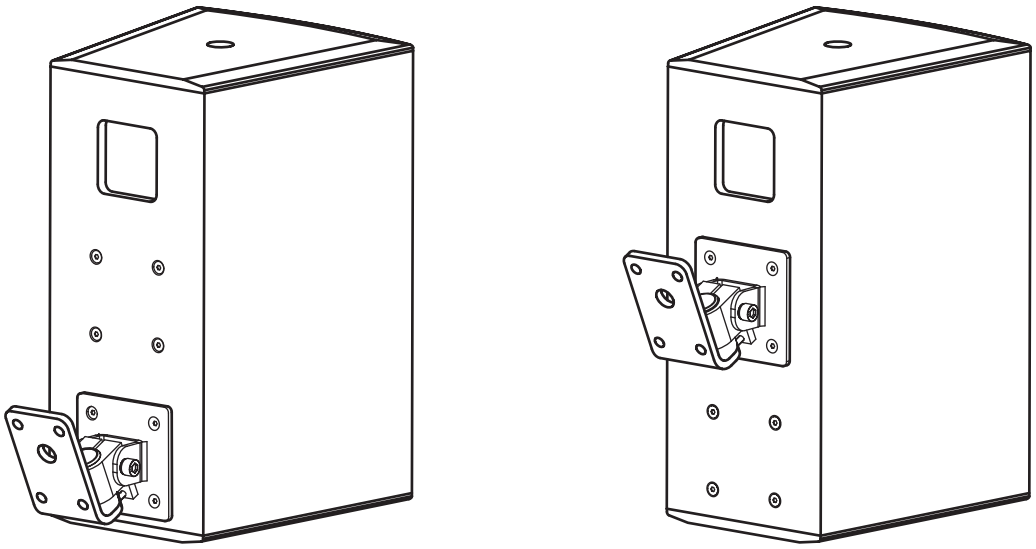
Necessary optional accessory: AC WM-M

Mount the fixed part of the AC WM-M accessory (shown in grey in the respective figure) to the wall through its corners with four M10 wall plugs. The central hole of the fixed part is useful to let pass the connecting cable from the wall outlet.

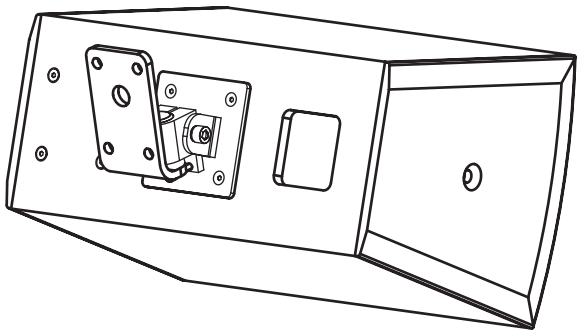
AC WM-M



It is possible to fix the moving part of the AC WM-M accessory directly to the loudspeaker rear panel (in one of the possible positions), through four M6 flat head screws (as shown in the figure below).



It is also possible the loudspeaker horizontal mounting (see the figure below).



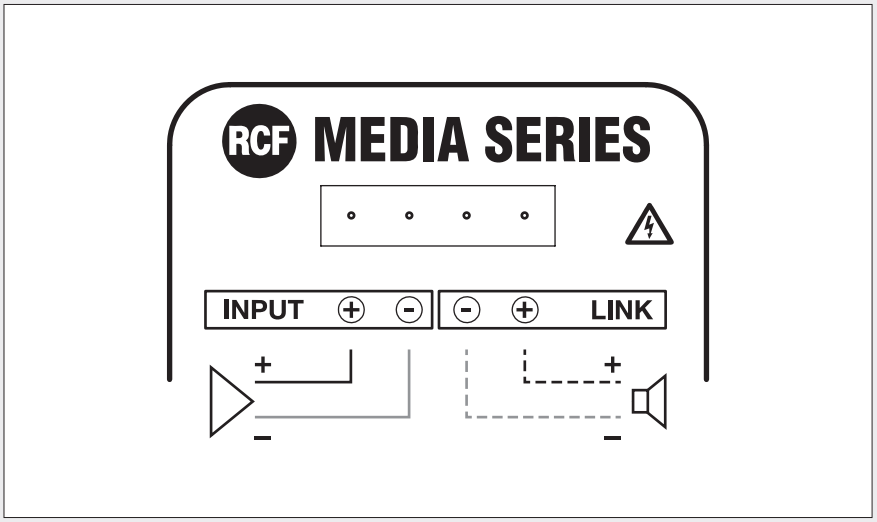
Then, put the loudspeaker on the fixed part of the AC WM-M accessory (that is wall-mounted) and tighten the bolt. The screw below allows vertical tilt adjustments.

CONNECTIONS

WARNING: loudspeaker connections should be only made by qualified and experienced personnel having the technical know-how or sufficient specific instructions (to ensure that connections are made correctly) in order to prevent any electrical danger.
To prevent any risk of electric shock, do not connect loudspeakers when the amplifier is switched on. Before turning the system on, check all connections and make sure there are no accidental short circuits.
The entire sound system shall be designed and installed in compliance with the current local laws and regulations regarding electrical systems.
'Media' series loudspeakers are designed for indoor use only. If installed outdoor, loudspeakers shall be protected against water.

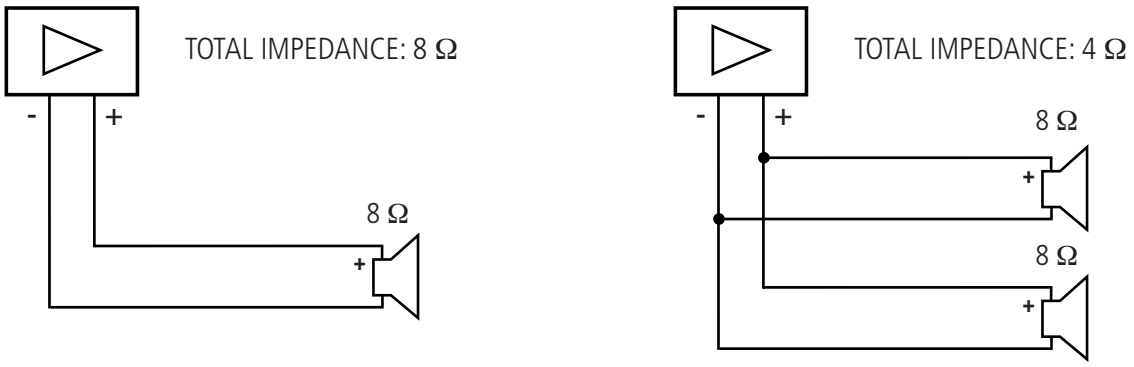
The impedance value of each loudspeaker is 8 Ω.

Connect the positive wire (amplifier '+' output) to the pin 'INPUT +' of the 4-pin EUROBLOCK connector. Connect the negative wire (amplifier '–' output) to the pin 'INPUT –' of the 4-pin EUROBLOCK connector.
The 'LINK +' and 'LINK –' pins are useful to link another loudspeaker in parallel.



NOTES ABOUT LOW IMPEDANCE CONNECTIONS

- The total loudspeaker impedance must not be lower than the amplifier output impedance. Note: a loudspeaker total impedance equal to the amplifier output one permits to get the maximum deliverable power (but an higher loudspeaker impedance entails less power).
- The total loudspeaker power shall be adequate for the maximum deliverable power of the amplifier.
- The loudspeaker line shall be short (for long distances, it may be necessary to use cables with large cross-section wires).



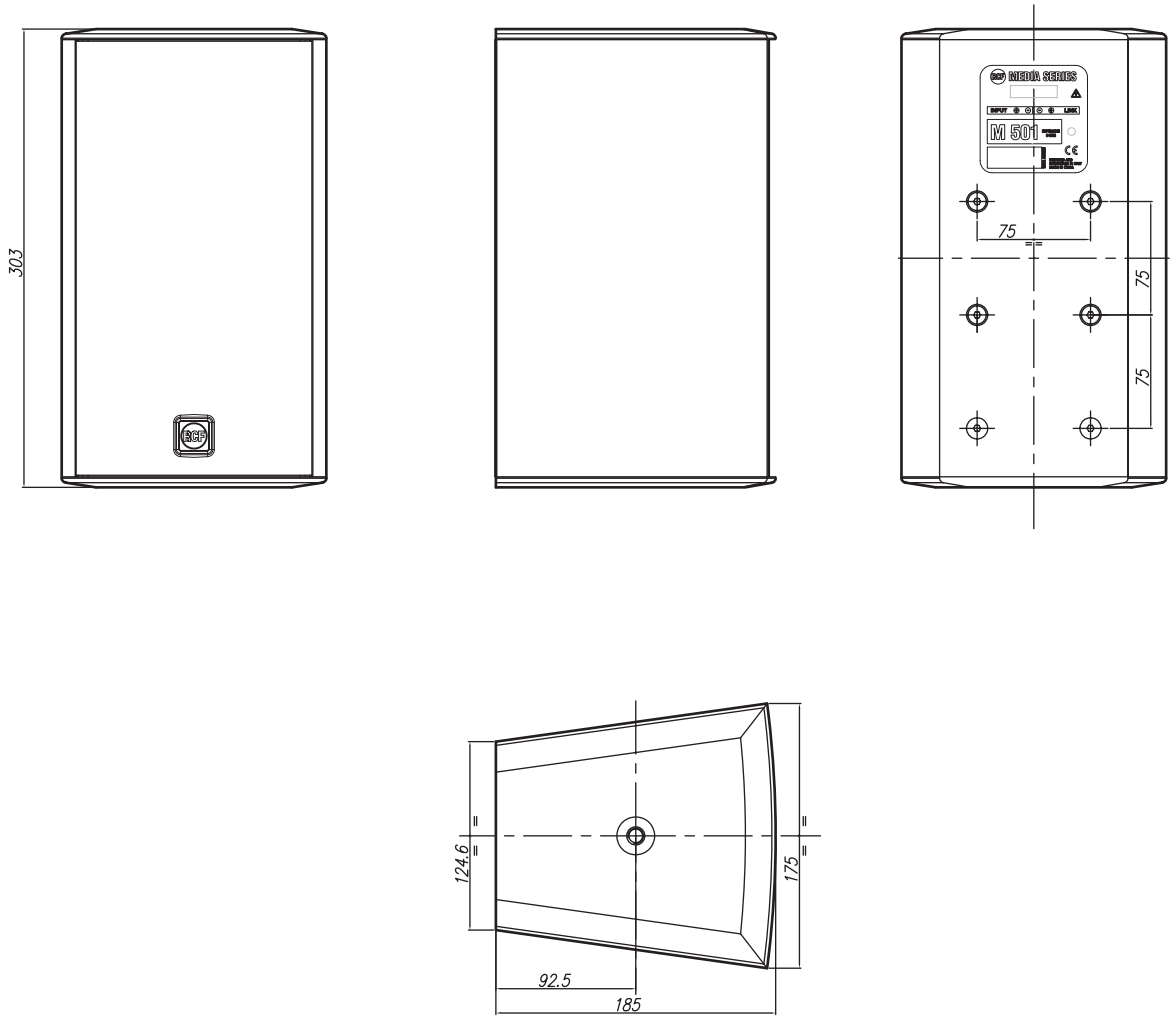
- Always use cables having wires with an adequate cross-section, considering the cable length and the total loudspeaker power.
- Loudspeaker lines must be kept separated from the mains cables, microphone cables or others, in order to avoid inductive phenomena may cause hum or noises.
- Use loudspeaker cables with twisted wires to reduce hum caused by inductive effects due to coupling with electromagnetic fields.
- Do NOT connect the low impedance input directly to 70 / 100 V constant voltage lines.

SPECIFICATIONS

MODEL	M 501	M 601	M 801	M 502	M 602
SYSTEM					
IMPEDANCE	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω
POWER (RMS)	80 W	100 W	150 W	100 W	120 W
POWER (peak)	320 W	400 W	600 W	400 W	480 W
RECCOMENDED AMPLIFIER	160 W	200 W	300 W	200 W	240 W
PROTECTION	PTC	DYN. ACTIVE MOSFET	DYN. ACTIVE MOSFET	DYN. ACTIVE MOSFET	DYN. ACTIVE MOSFET
FREQUENCY RESPONSE (–10 dB)	80 Hz ÷ 20 kHz	80 Hz ÷ 20 kHz	65 Hz ÷ 20 kHz	80 Hz ÷ 20 kHz	70 Hz ÷ 20 kHz
FREQUENCY RESPONSE (– 3 dB)	110 Hz ÷ 13 kHz	115 Hz ÷ 20 kHz	95 Hz ÷ 20 kHz	120 Hz ÷ 20 kHz	125 Hz ÷ 20 kHz
HORIZONTAL DISPERSION	90°	90°	90°	90°	90°
VERTICAL DISPERSION	90°	90°	60°	90°	90°
SENSITIVITY (1 W, 1m)	89 dB	92 dB	93 dB	92 dB	95 dB
MAX. SOUND PRESSURE LEVEL (peak)	114 dB	118 dB	120 dB	117 dB	122 dB
CROSSOVER FREQUENCY	1.9 kHz	2.2 kHz	1.8 kHz	2.3 kHz	2 kHz
LOW FREQUENCY TRANSDUCERS					
WOOFER TYPE	5.5″	6.5″	8″	2 x 5.5″	2 x 6.5″
WOOFER VOICE COIL	1.2″	1.2″	2″	1.2″	1.5″
WOOFER IMPEDANCE	8 Ω	8 Ω	8 Ω	16 Ω	16 Ω
WOOFER POWER	80 W (AES) 320 W (peak)	80 W (AES) 320 W (peak)	150 W (AES) 600 W (peak)	80 W (AES) 320 W (peak)	80 W (AES) 320 W (peak)
WOOFER SENSITIVITY	87 dB (1 W, 1 m)	92 dB (1 W, 1 m)	92 dB (1 W, 1 m)	88 dB (1 W, 1 m)	92 dB (1 W, 1 m)
HIGH FREQUENCY TRANSDUCERS					
DRIVER TYPE	1″	1″	1″	1″	1″
DRIVER VOICE COIL	1″	1.5″	1.5″	1.5″	1.5″
DRIVER IMPEDANCE	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω
DRIVER POWER	10 W (AES) 40 W (peak)	25 W (AES) 40 W (peak)	25 W (AES) 40 W (peak)	25 W (AES) 40 W (peak)	25 W (AES) 40 W (peak)
DRIVER SENSITIVITY	90 dB (1 W, 1 m)	106 dB (1 W, 1 m)	106 dB (1 W, 1 m)	106 dB (1 W, 1 m)	106 dB (1 W, 1 m)
PHYSICAL SPECS.					
CABINET	Trapezoidal (angle: 8°), made of MDF (12 mm)				
THREADED INSERTS	6 x M6, 2 x M10	6 x M6, 2 x M10	8 x M6, 2 x M10	6 x M6, 2 x M10	8 x M6, 2 M10
COLOUR	black / white (**-W** version)				
GRILLE	Steel, with a robust doublemesh polyester cloth.				
INPUT CONNECTORS	4-pin EUROBLOCK				
DIMENSIONS (w, h, d)	175, 303, 185 mm	215, 359, 230 mm	261, 448, 282 mm	175, 470, 185 mm	215, 540, 230 mm
NET WEIGHT	5 kg (11 lb)	6.9 kg (15.18 lb)	9.7 kg (21.35 lb)	7.5 kg (16.5 lb)	11 kg (24.2 lb)

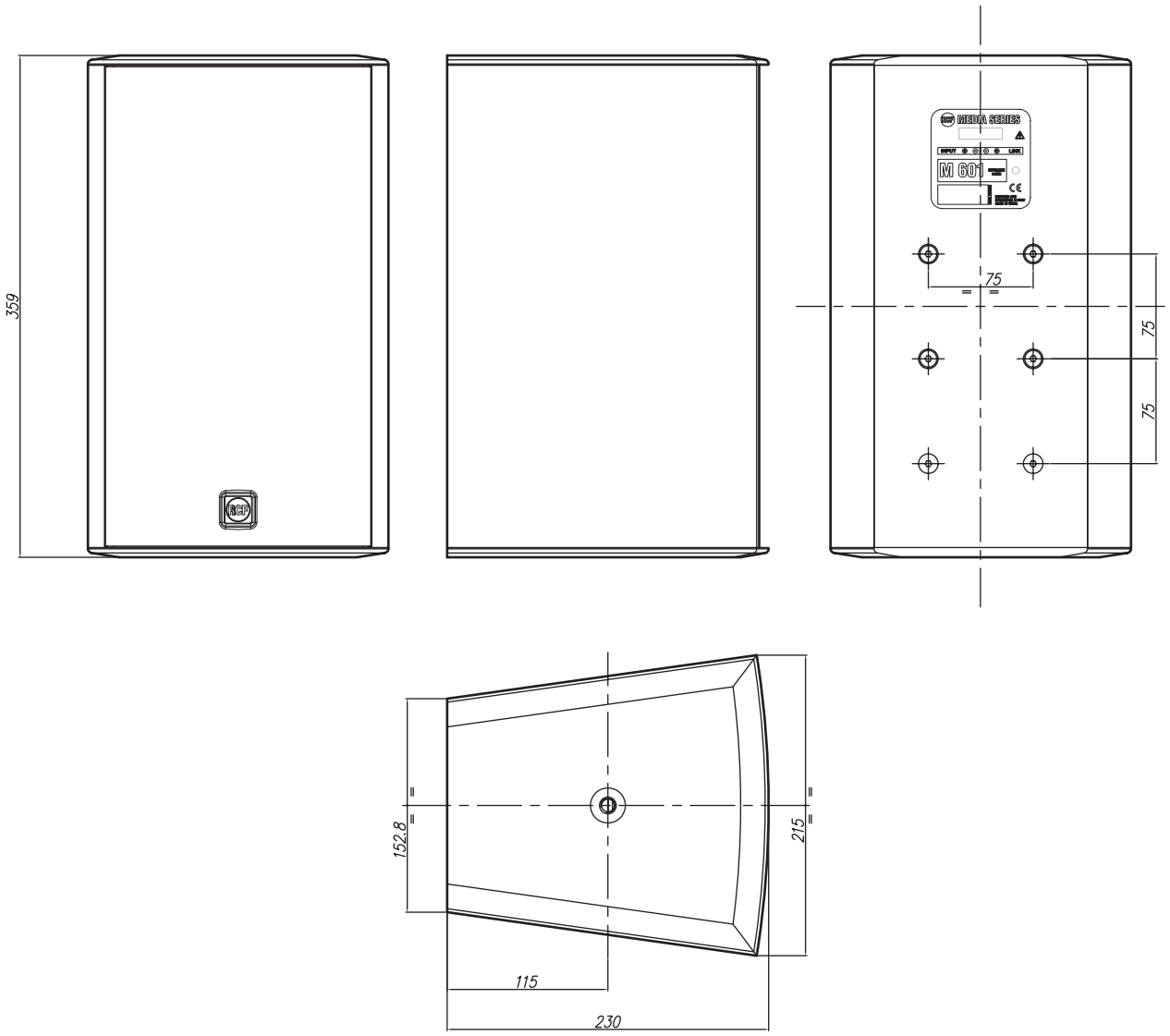
M 501 DIMENSIONS

mm



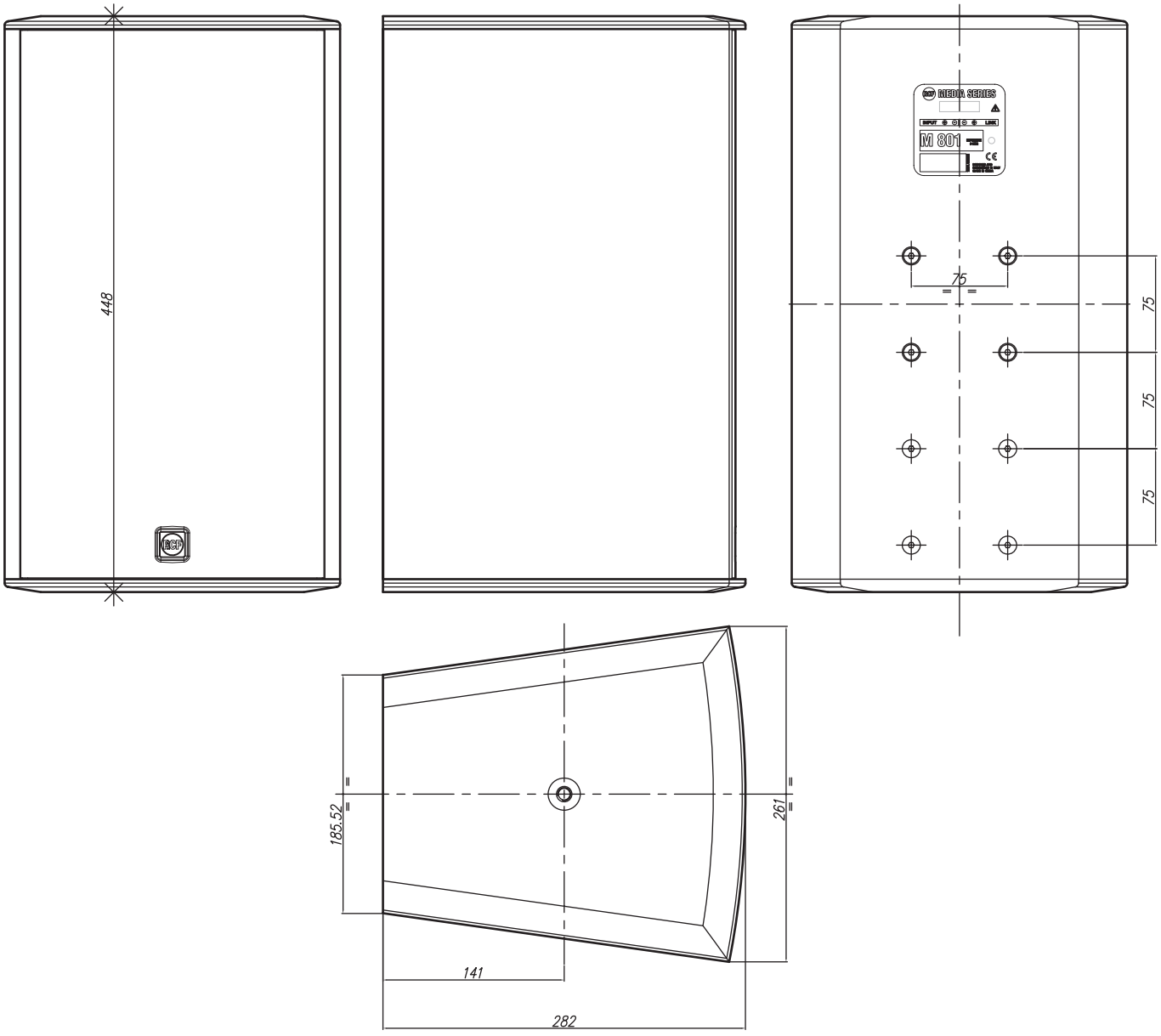
M 601 DIMENSIONS

mm



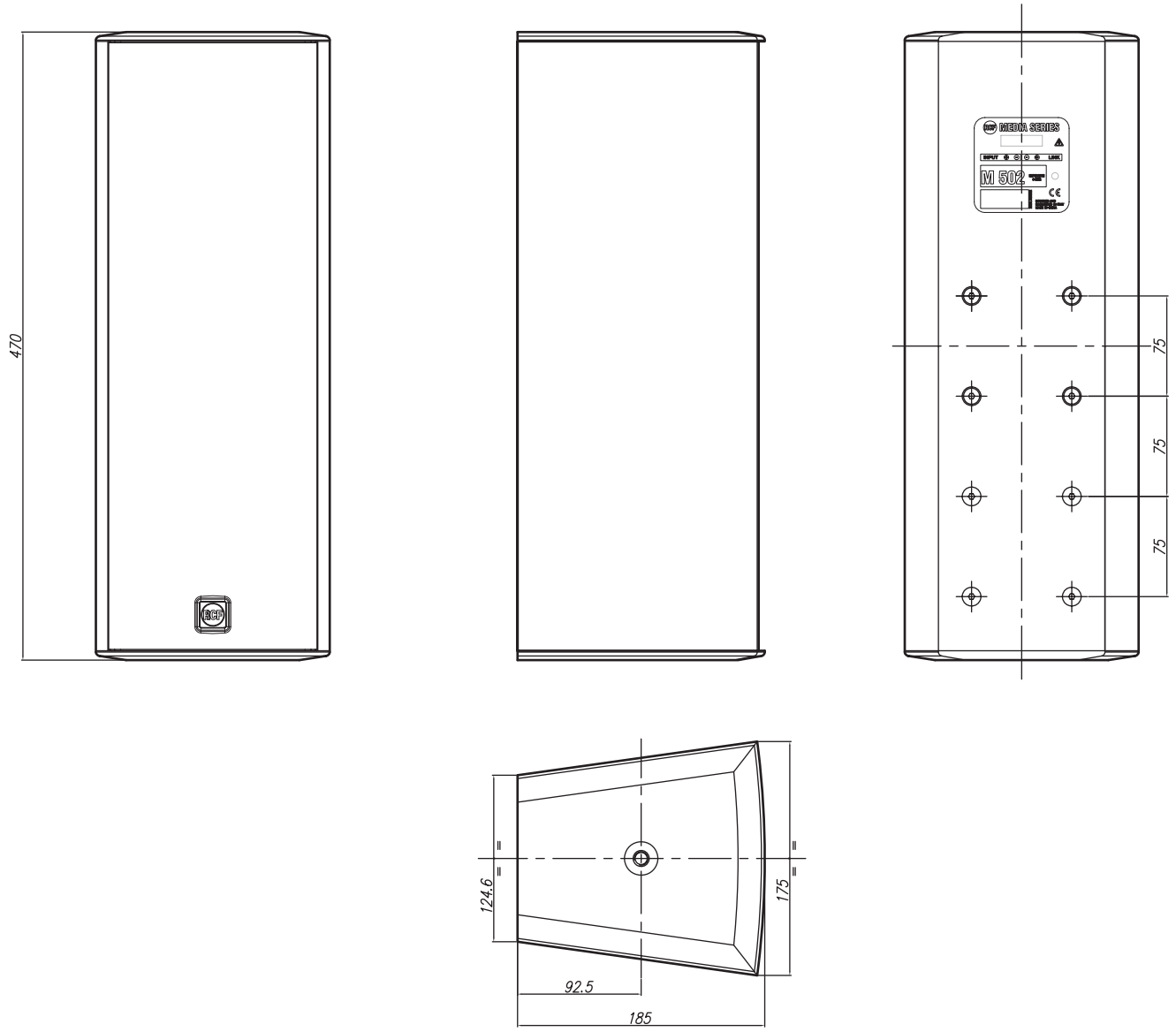
M 801 DIMENSIONS

mm



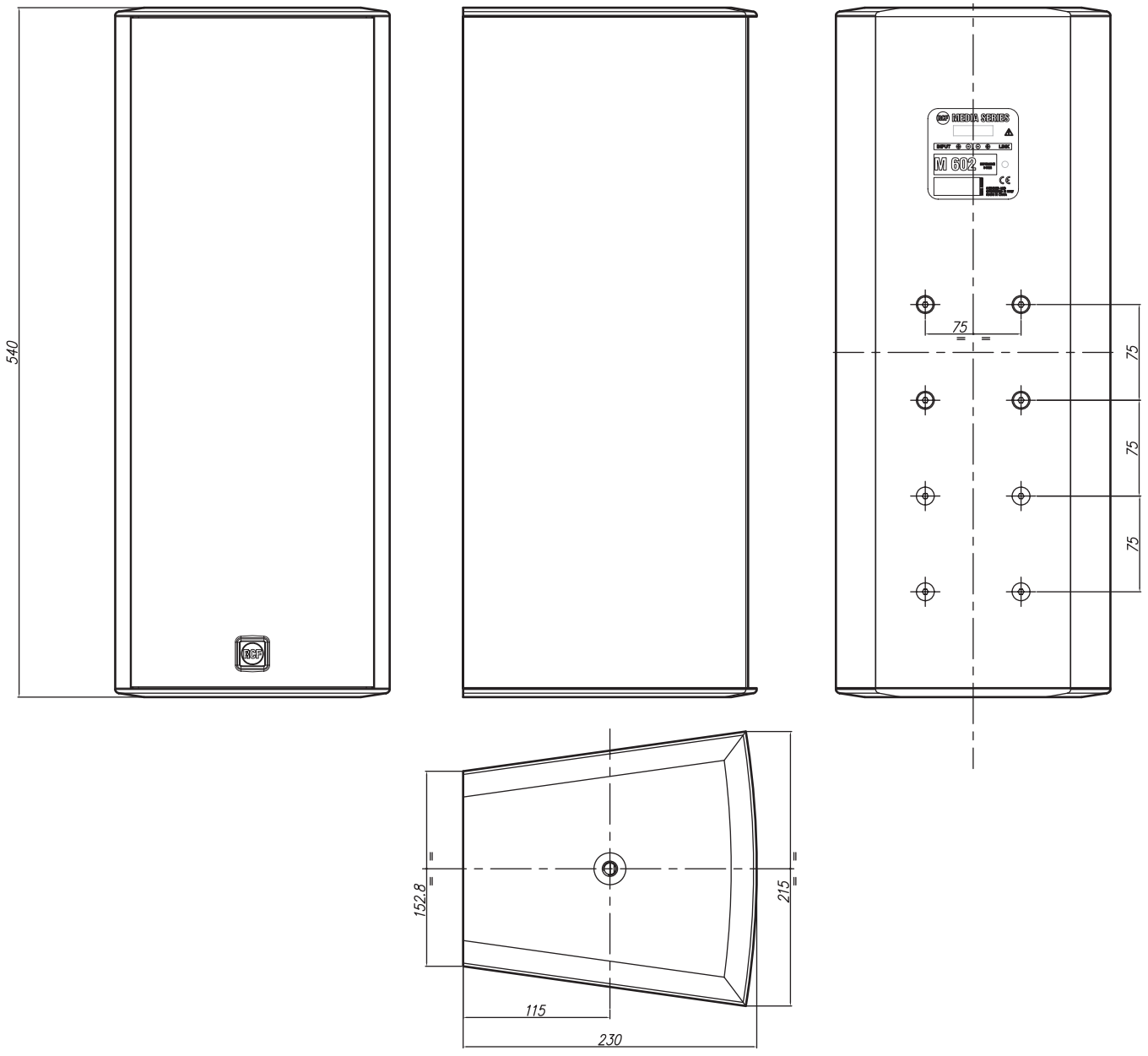
M 502 DIMENSIONS

mm



M 602 DIMENSIONS

mm



Salvo eventuali errori ed omissioni.
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