



# RCF X-MAX 10 High Power Two-Way Speaker Owner's Manual

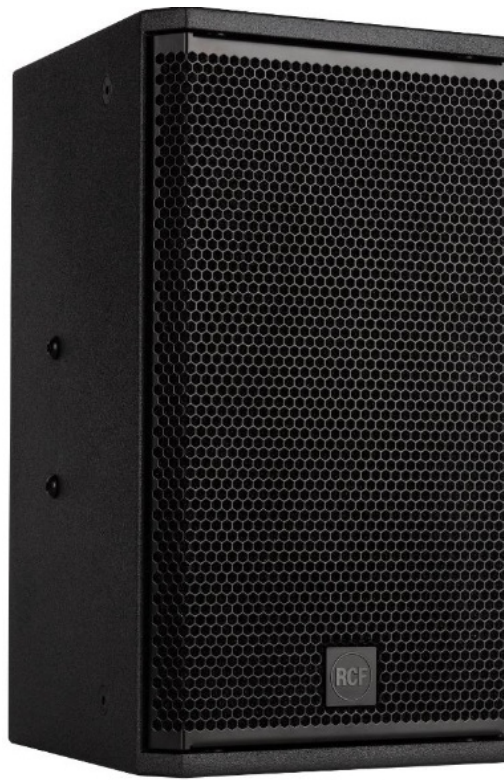
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**RCF X-MAX 10 High Power Two-Way Speaker**



## **SAFETY PRECAUTIONS**

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

## **POWER SUPPLY FROM MAINS**

- The mains voltage is sufficiently high to involve a risk of electrocution; install and connect this product before plugging it in.
- Before powering up, make sure that all the connections have been made correctly and the voltage of your mains corresponds to the voltage shown on the rating plate on the unit, if not, please contact your RCF dealer.
- The metallic parts of the unit are earthed through the power cable.
- An apparatus with CLASS I construction shall be connected to a mains socket outlet with a protective earthing connection.
- Protect the power cable from damage; make sure it is positioned in a way that it can-not be stepped on or crushed by objects.
- To prevent the risk of electric shock, never open this product: there are no parts inside that the user needs to access.
- Make sure that no objects or liquids can get into this product, as this may cause a short circuit.
- This apparatus shall not be exposed to dripping or splashing.
- No objects filled with liquid, such as vases, shall be placed on this apparatus.
- No naked sources such as lighted candles should be placed on this apparatus.
- Never attempt to carry out any operations, modifications or repairs that are not expressly.
- Contact your authorized service center or qualified personnel should any of the following occur
  - The product does not function or functions in an anomalous way.
  - The power cable has been damaged
  - Objects or liquids have got in the unit

- The product has been subject to a heavy impact.
- If this product is not used for a long period, disconnect the power cable.
- If this product begins emitting any strange odors or smoke, switch it off immediately and disconnect the power cable.
- 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 product 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.
- To prevent the risk of falling equipment, do not stack multiple units of this product unless this possibility is specified in the user manual.
- RCF S.p.A. strongly recommends this product is only installed by professional qualified installers or specialized firms who can ensure 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.
- Supports and trolleys
- The equipment should be only used on trolleys or supports, where necessary, that are recommended by the manufacturer.
- The equipment / support / trolley assembly must be moved with extreme caution. Sudden stops, excessive pushing force and uneven floors may cause the assembly to overturn.
- There are numerous mechanical and electrical factors 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.
- 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 therefore necessary to wear ear plugs or protective earphones.

## **IMPORTANT NOTES**

To prevent the occurrence of noise on line signal cables, use screened cables only and avoid putting them close to

- Equipment that produces high-intensity electromagnetic fields.
- Power cables.
- Loudspeaker lines.

## **OPERATING PRECAUTIONS**

- Place this product far from any heat sources and always ensure an adequate air circulation around it.

- Do not overload this product for a long time.
- Never force the control elements keys, knobs, etc.
- Do not use solvents, alcohol, benzene or other volatile substances for cleaning the external parts of this product.

### **IMPORTANT NOTES**

Before connecting and using this product, please read this instruction manual carefully and keep it on hand for future reference. The 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 product to rain or humidity.

## **X-MAX 10 and X-MAX 12 HIGH POWER TWO-WAY SPEAKERS**

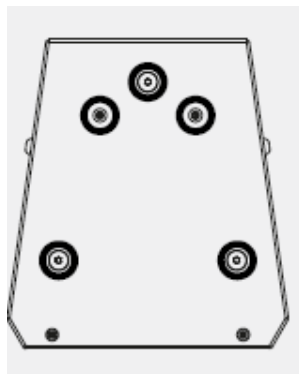
The full-range passive two-way speakers X-MAX 10 and X-MAX 12 have been specifically designed as club systems for entertainment, to achieve the best nearfield quality, vocal coherence and a stable tonal balance even at high volume. The heavy-duty speaker cabinets are made of plywood coated with black textured acrylic paint. The X-MAX 10 features a 10" woofer with a 2.5" voice coil and the X-MAX 12 features a 12" woofer still with a 2.5" voice coil. Both the speakers feature a 1.0" compression driver with 1.4" voice coil. The LICC crossover design includes an electronic protection on high-frequency device. The rotatable 90°x70° horn allows installation either vertically or horizontally in any environment and architectural constraint.

### **MOUNTING POINTS**

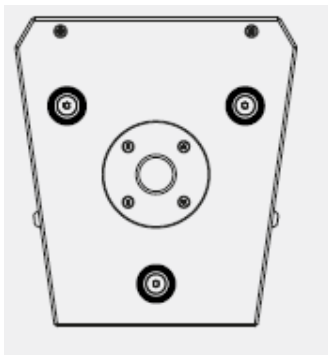
For both X-MAX, mounting points are 18 total

- 5 on top
- 3 on bottom
- 8 on the sides (4 on each side)
- 2 on back side

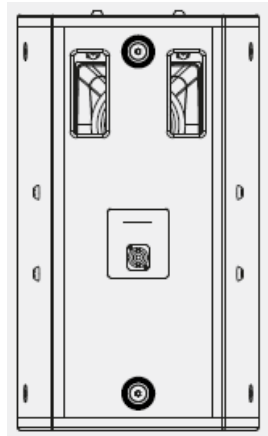
#### **TOP MOUNTING POINTS**



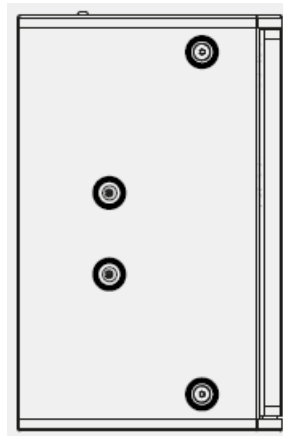
#### **BOTTOM MOUNTING POINTS**



## BACK MOUNTING POINTS



## SIDE MOUNTING POINTS

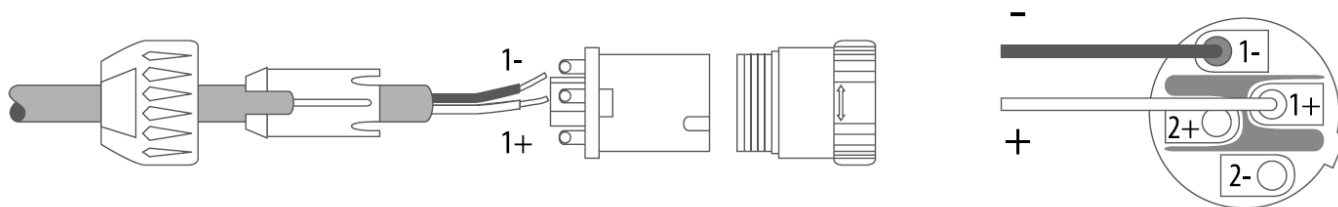


## CONNECTIONS

### WARNING

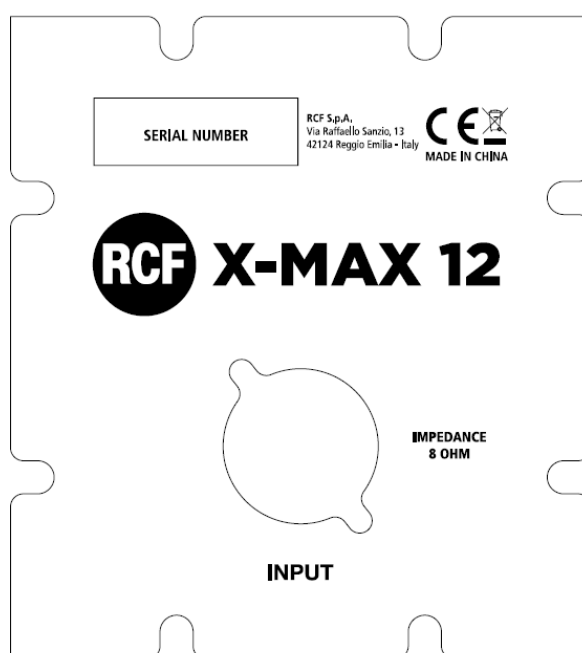
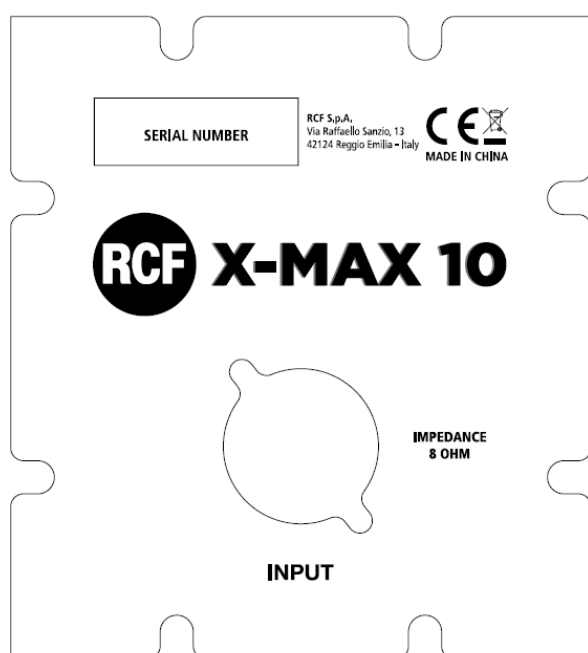
Loudspeaker connections should be only made by qualified and experienced personnel having the technical know-how or sufficient specific instructions (to ensure that connections are made correctly) in order to prevent any electrical danger. To prevent any risk of electric shock, do not connect loudspeakers 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. X-MAX speakers are designed for indoor use only. If installed outdoor, they shall be protected against water.

**The impedance value of each loudspeaker is 8  $\Omega$**



Connect the positive wire amplifier + output to the pin 1+ of the SPEAKON connector. Connect the negative wire amplifier output to the pin 1– of the SPEAKON connector. The pins 2+ and 2– are not used.

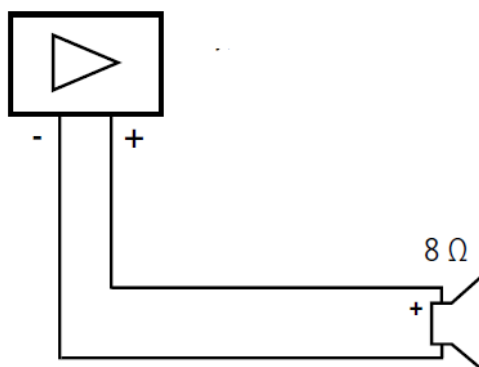
Two sockets input and output, linked in parallel for Neutral Speak on NL4 4-pole plugs are available on every rear panel.



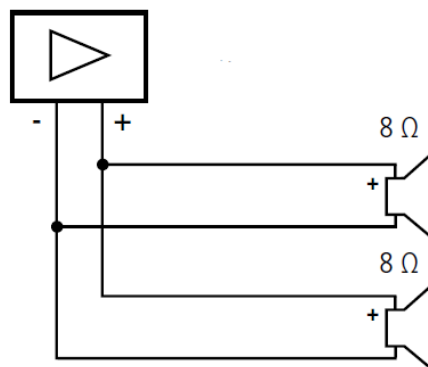
## NOTES ABOUT LOW IMPEDANCE CONNECTIONS

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 thX-MAXimum deliverable power (but an higher loudspeaker impedance entails less power. The total loudspeaker power shall be adequate for thX-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).

**TOTAL IMPEDANCE: 8  $\Omega$**



**TOTAL IMPEDANCE: 4 Ω**




- 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

| TECHNICAL SPECIFICATIONS  |                             | X MAX 10                       | X MAX 12                       |
|---------------------------|-----------------------------|--------------------------------|--------------------------------|
| Acoustical specifications | Frequency Response (-10dB): | 65 Hz ÷ 20000 Hz               | 60 Hz ÷ 20000 Hz               |
|                           | Max SPL @ 1m:               | 128 dB                         | 129 dB                         |
|                           | Horizontal coverage angle:  | 90°                            | 90°                            |
|                           | Vertical coverage angle:    | 70°                            | 70°                            |
|                           | Directivity index Q:        | 9                              | 9                              |
|                           | System Sensitivity:         | 97 dB                          | 97 dB                          |
| Power section             | Nominal Impedance (ohm):    | 8 ohm                          | 8 ohm                          |
|                           | Power Handling:             | 350 W RMS                      | 400 W RMS                      |
|                           | Peak Power Handling:        | 1400 W PEAK                    | 1600 W PEAK                    |
|                           | Recommended Amplifier:      | 700 W                          | 800 W                          |
|                           | Protections:                | Dynamic active mosfet          | Dynamic active mosfet          |
|                           | Crossover Frequencies:      | 1800 Hz                        | 1800 Hz                        |
| Transducers               | Compression Driver:         | 1 x 1.0", 1.4" v.c             | 1 x 1.0", 1.4" v.c             |
|                           | Nominal Impedance (ohm):    | 8 ohm                          | 8 ohm                          |
|                           | Input Power Rating:         | 50 W AES, 100 W program power  | 50 W AES, 100 W program power  |
|                           | Sensitivity:                | 107 dB, 1W @ 1m                | 107 dB, 1W @ 1m                |
|                           | Woofer:                     | 10", 2.5" v.c                  | 12", 2.5" v.c                  |
|                           | Nominal Impedance (ohm):    | 8 ohm                          | 8 ohm                          |
|                           | Input Power Rating:         | 300 W AES, 600 W program power | 350 W AES, 700 W program power |
|                           | Sensitivity:                | 97 dB, 1W @ 1m                 | 97 dB, 1W @ 1m                 |
| Input/Output section      | Input connectors:           | Speakon                        | Speakon                        |
| Standard compliance       | CE marking:                 | Yes                            | Yes                            |
| Physical specifications   | Cabinet/Case Material:      | Plywood                        | Plywood                        |
|                           | Hardware:                   | 2 x M8, 16 x M10               | 2 x M8, 16 x M10               |
|                           | Pole mount/Cap:             | Yes                            | Yes                            |
|                           | Grille:                     | Steel with clothing            | Steel with clothing            |
|                           | Color:                      | Black                          | Black                          |
| Size                      | Height:                     | 510 mm / 24.41 inches          | 620 mm / 24.41 inches          |
|                           | Width:                      | 295 mm / 14.25 inches          | 362 mm / 14.25 inches          |
|                           | Depth:                      | 325 mm / 15.91 inches          | 404 mm / 15.91 inches          |

Documents / Resources

|   |   |
|---|---|
|  | <p><a href="#">RCF X-MAX 10 High Power Two-Way Speaker</a> [pdf] Owner's Manual<br/>X-MAX 10, X-MAX 12, X-MAX 10 High Power Two-Way Speaker, X-MAX 10, High Power Two-Way Speaker, Two-Way Speaker, Speaker</p> |
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