# OWNER MANUAL MANUALE D'USO

# **EVOX J8**

- PROFESSIONAL ACTIVE TWO-WAY ARRAY
- DIFFUSORE ACUSTICO ("ARRAY")

  AMPLIFICATO A DUE VIE



### **SAFETY PRECAUTIONS**



#### **IMPORTANT**

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.

**CAUTION**: to prevent electric shock hazard, do not connect to mains power supply while grille is removed

#### SAFETY PRECAUTIONS

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

#### 2. POWER SUPPLY FROM MAINS

- Appliance coupler or PowerCon Connector® is used to disconnect device from MAIN power. This device shall remain readily accessible after the installation
- The mains voltage is sufficiently high to involve a risk of electrocution: never install or connect this product when its power cord is plugged 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 by means of the power cord. This is a Class I device and for its use it must be connected to a grounded power source.
- Protect the power cord from damage. Make sure it is positioned in a way that it cannot 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.
- **3.** 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) and no naked sources (such as lit candles) should be placed on this apparatus.
- **4.** 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 product does not function (or functions in an anomalous way).
- The power cord has been damaged.
- Objects or liquids are inside the product.
- The product has been subject to a heavy impact.
- **5.** If this product is not used for a long period, disconnect its power cord.
- **6.** If this product begins emitting any strange odours or smoke, switch it off immediately and disconnect its power cord.
- **7.** Do not connect this product to any equipment or accessories not foreseen. Do not try to hang this product by using elements that are unsuitable or not specific for this purpose.

**IMPORTANT** 



WARNING



**CAUTION** 



To prevent the risk of falling equipment, do not stack multiple units of this product unless this possibility is specified in the user manual.

**8. RCF S.p.A.** strongly recommends this product is only installed by professional qualified installers (or specialised 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.

#### **9.** 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.

#### **10.** 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. See the manual technical specifications to know the maximum sound pressure level.

- **11.** Situate this product far from any heat sources and always ensure adequate air circulation around it.
- **12.** Do not overload this product for a long time.
- **13.** Never force the control elements (keys, knobs, etc. ).
- **14.** Do not use solvents, alcohol, benzene or other volatile substances for cleaning the external parts of this product. Use a dry cloth.
- **15.** Do not put microphones close and in front of speakers, in order to avoid audio feedback ('Larsen effect').

## **NOTES ABOUT AUDIO SIGNAL CABLES**



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

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

The equipments considered in this manual can be used in electromagnetic environment E1 to E3 as specified on EN 55103-1/2: 2009.

### **FCC NOTES**



**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 it is not installed and used in accordance with the instruction manual, it 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.

**Modifications:** Any modifications made to this device that are not approved by RCF may void the authority granted to the user by the FCC to operate this equipment.

#### **DESCRIPTION**



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

**EVOX J8** is a portable active sound system (made of a satellite plus a subwoofer) that combines quality and reliability of RCF transducers with high amplification power.

It features eight 2.0" full range transducers in the line source satellite and a deep sounding 12" woofer in a bass reflex enclosure.

The system is an optimal portable solutions for live music, DJ mix-sets and also presentations, congresses, other events, etc. .

#### **INNOVATIVE DSP PROCESSING**

EVOX DSP processing is the result of many years of experience in line array design combined with innovative and dedicated algorithms. Thanks to the frequency dependent drivers excursion and control of distortion, EVOX DSP processing is capable to guarantee a high output from these small systems. A dedicated vocal processing has been specifically studied for speech reproduction during presentations or conferences.

#### **RCF TECHNOLOGY**

EVOX J8 includes high technology RCF transducers.

The ultra-compact full-range 2" driver can handle extremely high sound pressure levels and power. The high excursion woofers are able to extend to the lowest frequencies and offer a quick and precise response up to the crossover point.

Specific attention has been dedicated to mid-low frequencies as well.

#### CONTROLLED DIRECTIVITY PATTERN

EVOX array design features a constant horizontal directivity coverage of 120°, offering a perfect listening experience to the audience.

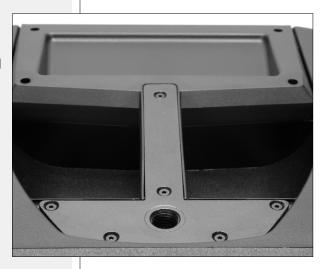
The vertical array design is progressively shaped to guarantee a correct listening from the first row.

#### **MULTIFUNCTIONAL TOP HANDLE**

The top steel plate joins the handle and the insert for pole mounting. A rubber hand grip has been added for great portability.

#### **CLASS D AMPLIFICATION**

EVOX J8 includes a high power two-way class D amplifier with DSP controlled crossover.



# **INSTALLATION**



Remove the rubber band and take out the satellite







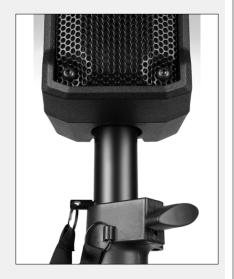
Screw the lower part of the satellite speaker stand (the pole) into the subwoofer insert for pole mounting.



Screw the central part of the satellite speaker stand into its lower part.



Loose the stand bolt, adjust the satellite speaker height from the floor and tighten the bolt again, then insert the satellite speaker into its complete stand and aim it correctly.



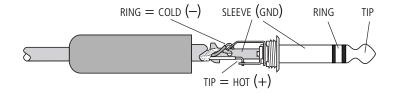


# SUBWOOFER REAR PANEL AND CONNECTIONS



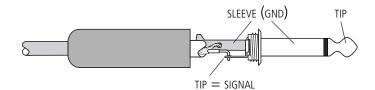
1 Balanced audio input (1/4" TRS jack)

#### 1/4" TRS JACK CONNECTOR



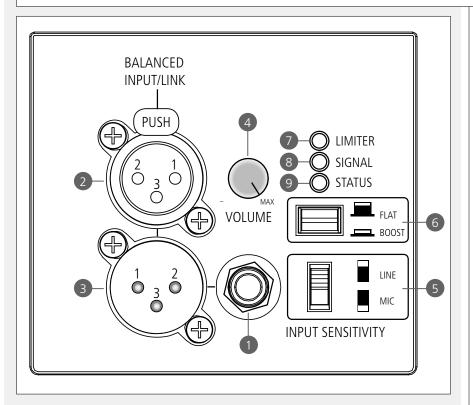
#### **BALANCED CONNECTION**

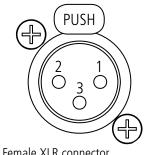
TIP: + HOT RING: -COLDSLEEVE: GND



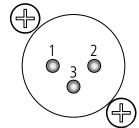
#### UNBALANCED CONNECTION

TIP: SIGNAL SLEEVE: GND





Female XLR connector



Male XLR connector

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1 GROUND, 2 AUDIO SIGNAL (+, HOT), 3 AUDIO SIGNAL (-, COLD).

- 2 Balanced audio input (female XLR connector)
- 3 Balanced parallel audio output (male XLR connector). This output is linked in parallel with the audio input and is useful to connect another speaker.

- 4 Amplifier volume control
- 5 Input sensitivity switch

**LINE** (normal mode): the input sensitivity is set to LINE level (+4 dBu), suitable for a mixer output.

**MIC:** the input sensitivity is set to MIC level, suitable for the direct connection of a dynamic microphone. Do NOT use this setting when connected to a mixer output!

6 FLAT / BOOST switch

**FLAT** (released switch, normal mode): no equalisation is applied (flat frequency response).

**BOOST** (pushed switch): 'loudness' equalisation, only recommended for <u>background</u> <u>music at low volume levels.</u>

7 LIMITER LED

The internal amplifier has a limiter circuit to prevent clipping and overdriving transducers. It blinks when the signal level reaches the clipping point, causing the limiter intervention. If it is steady lit, the input signal level is excessive and should be reduced.

8 SIGNAL LED

When lit, it indicates the signal presence at the audio input.

9 STATUS LED

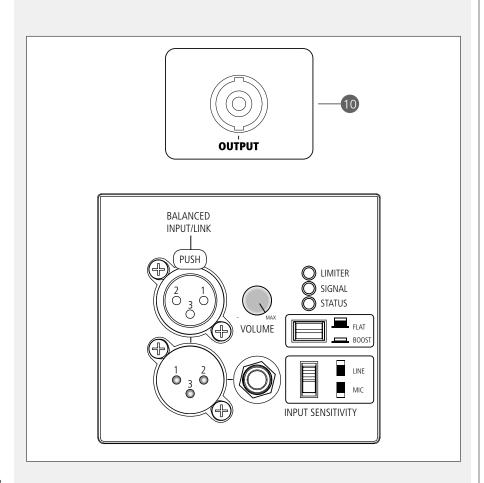
When blinking, it indicates the internal protection intervention due to thermal drift (the amplifier is muted).

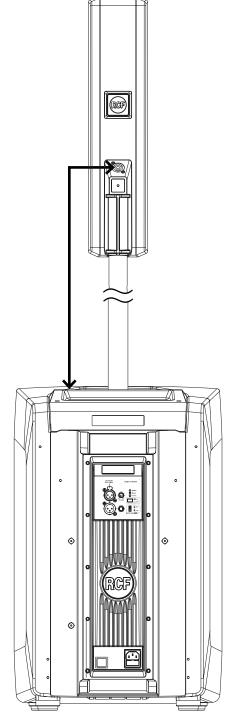
10 Amplifier output to link the satellite speaker.

#### **IMPORTANT:**

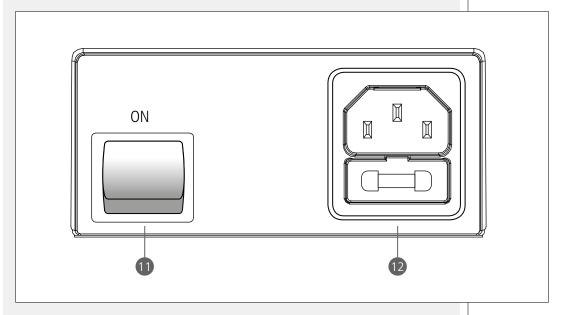
BEFORE TURNING THE AMPLIFIER ON, LINK THE SUBWOOFER AMPLIFIER OUTPUT TO THE SATELLITE SPEAKER INPUT (AS SHOWN IN THE FIGURE)!







POWER switch Push it to turn ON / OFF the amplifier. Before switching the amplifier on, check all the connections and turn fully counterclockwise ( $-\infty$ ) the volume control 4.



12 VDE inlet.

100-120V~ T 6.3 A L 250V 220-240V~ T 3.15 A L 250V

Before connecting the power cord, check if the A/C power corresponds to the voltage indicated on the rating plate on the unit, if not, please contact your RCF dealer. Connect the power cord only to a A/C power socket outlet with a protective earthing connection.

When replacing the fuse, refer to the silkscreen indications.

**WARNING**: the VDE Power Connector is used to disconnect the system from the power supply network. It must be easily accessible after the installation and during the use of the system.

### **SPECIFICATIONS**

**EVOX J8** 

40 Hz - 20.000 Hz

128 dB 120°

30°

12", 2.5" voice coil

8 x 2", 1.0" voice coil

1000 W (peak)

400 W (peak)

+4 dBu 220 Hz

thermal drift, RMS

software limiter

convective

115 / 230 V (according to the model), 50-60 Hz

10,1 A (According to EN 55013-1:2009)



#### **ACOUSTICAL**

Frequency response

Maximum sound pressure level

Horizontal coverage angle

Vertical coverage angle

Subwoofer transducer

Satellite transducers

#### **AMPLIFIER / DSP**

Amplifier power (low frequencies)

Amplifier power (high frequencies)

Input sensitivity (LINE)

Crossover frequency

Protections

Limiter

Cooling

SUBWOOFER PHYSICAL

**Operating voltage** 

Inrush current

 Height
 2350 mm (92.5")

 Width
 350 mm (13.77")

 Depth
 450 mm (17.71")

#### SATELLITE PHYSICAL

 Height
 501,2 mm (19,73")

 Width
 113,9 mm (4,48")

 Depth
 120,5 mm (4.74")

#### **ENTIRE SYSTEM PHYSICAL**

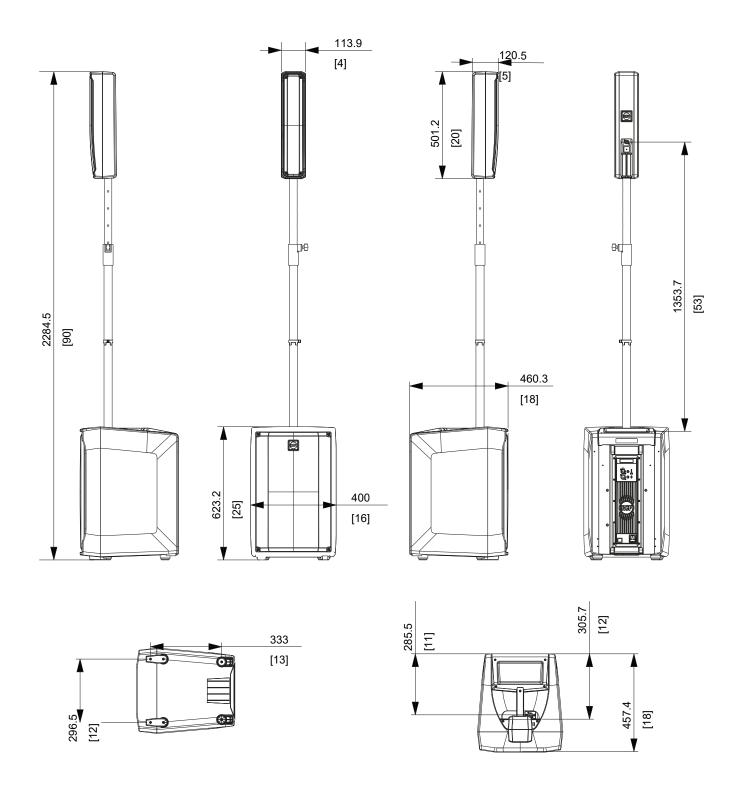
Minimum height of the system 1974 mm (77,7")

Maximum height of the system 2284 mm (89,9")

Net weight 23,8 Kg (52,5 lbs)

Cabinet PP composite





# www.rcf.it



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