

# OWNER MANUAL

## **ART 7 SERIES** MK **4!**

PROFESSIONAL ACTIVE  
SPEAKER SYSTEMS





**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**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.



Before connecting and using the amplifier, please read this instruction manual carefully and keep it on hand for future reference. The manual is to be considered an integral part of the product and must accompany the amplifier 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 the product.



**WARNING: To prevent the risk of fire or electric shock, never expose this equipment to rain or humidity.**

1. All the precautions, in particular the safety ones, must be read with special attention, as they provide important information.
2. The power supply voltage of this equipment is sufficiently high to involve a risk of electrocution; therefore, never install or connect the product with the power supply switched on.

Before powering up the amplifier, make sure that all the connections have been made correctly and that the voltage of your power mains corresponds to the voltage shown on the rating plate on the unit; if it does not, please contact your RCF dealer.

The metallic parts of the unit are earthed by means of the power cable. This is a Class I device and for its use it must be connected to a grounded power source. To protect the power cable from damage, make sure that it is positioned so that it cannot be stepped on or crushed by objects. To prevent the risk of electric shock, never open the amplifier. There are no parts on the inside that the user needs to access. Appliance coupler or PowerCon Connector® is used to disconnect device from MAIN power. This device shall remain readily accessible after the installation.

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, shall be placed on this apparatus. No naked sources (such as lighted 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 amplifier does not function (or functions in an anomalous way);
- the power supply cable has been damaged;
- objects or liquids have got into the unit;
- the amplifier has been subject to heavy impact.

5. When the amplifier is not to be used for long periods of time, switch it off and disconnect the power cable.

6. If the amplifier begins to emit any strange odours or smoke, switch it off immediately and disconnect the power supply cable.

7. Do not connect this product to any equipment or accessories not specified.

For suspended installation, only use the dedicated anchoring points and do not try to hang this product using HANDLES or 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 the transducer.

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

8. RCF S.p.A. strongly recommends this product is 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 only be 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. 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.).

#### 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 therefore 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.



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



To prevent the occurrence of noise on the cables that carry microphone signals or line signals (for example, 0 dB), only use screened cables and avoid running them in the vicinity of:

- equipment that produces high-intensity electromagnetic fields (for example, high power transformers);
- mains cables;
- lines that supply loudspeakers.

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

## OPERATING PRECAUTIONS

- Do not obstruct the ventilation grilles of the unit. Situate this product far from any heat sources and always ensure adequate air circulation around the ventilation grilles.
- Do not overload this product for extended periods of 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.

## ART7 SERIES

AT RCF WE CARE ABOUT YOUR SOUND

Back in 1996 RCF moved into the forefront of the active loudspeaker technology with the introduction of the ART Series: a loudspeakers range that was able to deliver perfect and powerful sound with a lightweight cabinet strong enough to withstand everyday use.

The RCF R&D team kept evolving the ART technology during the last decade, developing reference products such as the ART 322-A, the ART 310-A and the new digitally amplified ART 525-A.

The RCF Team always has the performer's needs at the forefront of the design in order to create new lines of speakers with renewed features, improved sound clarity and definition and even lighter weight systems.

The latest iconic design is the ART 7 Series: an evolution in the active loudspeaker technology with a revolutionary design and sound. Every detail of the 7 Series has been carefully studied in order to offer musicians and professionals the perfect tool to amplify their performance, night after night. High quality materials, precise manufacturing, careful assembly and extensive quality control procedures complete the groundbreaking design work of the RCF R&D team.

## COMPONENTS

All the transducers in the Art 7 Series speakers feature high power magnets in order to guarantee a better performance and make for easier transportation.

All Compression drivers and Transducers are precision built taking advantage of RCF's superior moulding, assembly technologies and a wealth of professional knowledge and experience dedicated to achieving extremely high standards.

## AMPLIFIERS

All Art 7 Series two-way speakers are equipped with a new generation of 750 Watt Digital Amplifiers, 500 Watt for the woofers and 250 Watt for the compression drivers. The result of this is very high output, extremely low distortion and an incredible natural sound.

Each amplifier presents both XLR/jack (Combo) balanced inputs, XLR output link, volume and a switchable EQ Mode (Flat/Boost), additional MIC/Line input switch.

The amplifier features a solid mechanical aluminium structure which not only stabilize the amplifier during transportation but also assist in the heat dissipation.

All the Art 7 Series amplifiers presents PFC power supply section in order to produce maximum output even in case of tension drops from main supply.

Art 708-A MK4 is equipped with a 400 Watt amplifier (300 Watt for the woofer, 100 Watt for the compression driver)

## CABINETS

The new loudspeaker design looks aggressive whilst retaining familiar Art ergonomics and is the result of extensive combined functional and acoustic research.

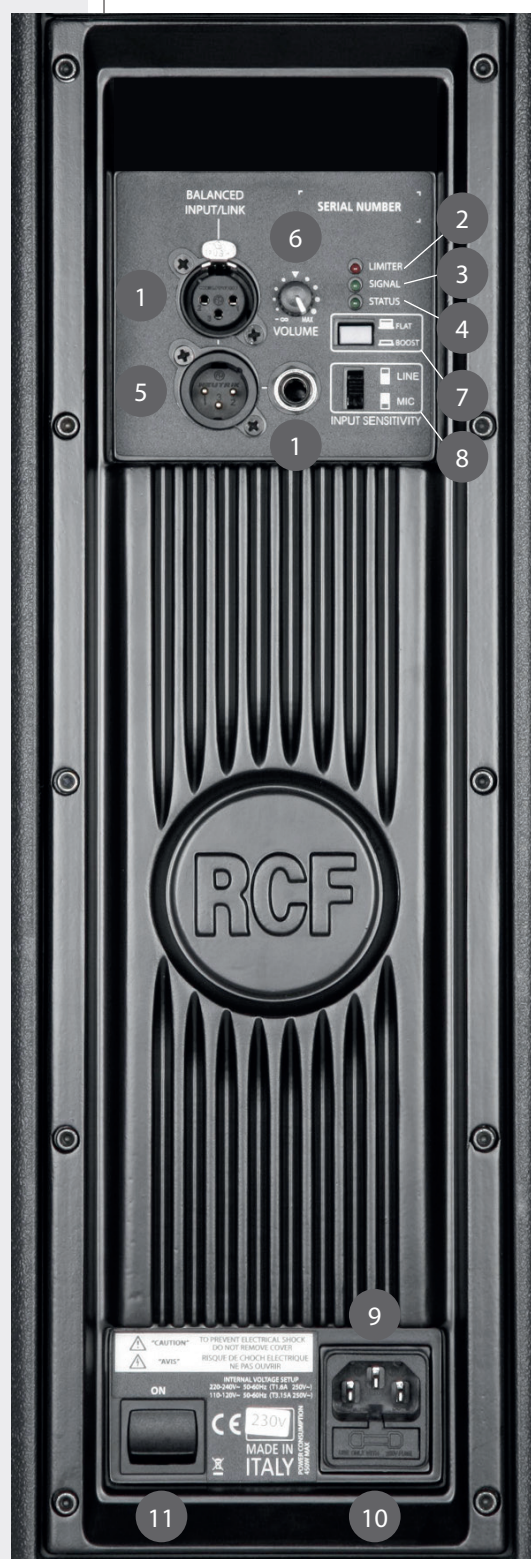
The Art 7 Series two-way system cabinets are moulded in a special polypropylene composite material and are designed to dampen down vibrations even at maximum volume settings. The reflex porting has been resized to offer a better efficiency. The ART 710-A MK II model is equipped with a top handle with rubber handgrip for greater portability; the bigger models have 3 ergonomically designed handles with rubber handgrip - 2 on the sides and one at the top. At the bottom a rugged steel pole mount has been installed in all models.

The new cabinet shape will allow every ART 7 Series model to be used in the standard configuration as well as in stage monitor mode.

Two M10 threaded inserts are provided for optional mounting hardware in Installed Sound Applications.

## REAR PANEL FEATURES AND CONTROLS

- 1 JACK/FEMALE XLR INPUTS (BAL/UNBAL)**  
The system accept jack or XLR input connectors.
- 2 LIMITER LED**  
The amplifier has a built in limiter circuit to prevent clipping of the amplifiers or overdriving the transducers. When the soft clipping circuit is active the LED blinks orange. It is okay if the limit LED blinks occasionally. If the LED blinks frequently or lights continuously, turn down the signal level.
- 3 SIGNAL LED**  
The signal indicator lights green if there is signal present on the main XLR input
- 4 STATUS LED**  
The status indicator flash if the temperature protection is active.
- 5 MALE XLR SIGNAL OUTPUT**  
The output XLR connector provides a loop trough for speakers daisy chaining.
- 6 VOLUME CONTROL**  
Adjust the amplifier volume.
- 7 FLAT/BOOST SWITCH**  
Set the flat or boost equalization. "Boost" equalization is a loudness recommended for background music applications, when the system plays at a low level. For all other applications "Flat" equalisation is recommended.
- 8 INPUT SENSITIVITY SWITCH.** Position the switch in LINE to use a line level source (0 dB) or MIC to use a microphone source.
- 9 IEC AC SOCKET**  
The IEC AC socket connect the power cord to the socket.
- 10 FUSE CARRIER.** Mains fuse housing.
- 11 POWER MAIN SWITCH**  
The power switch turns the AC power ON and OFF.





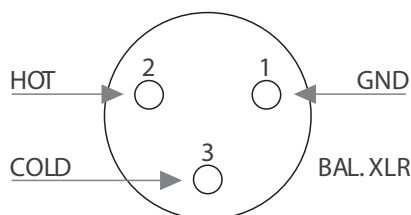
## CONNECTIONS

The XLR connectors use the following AES standard:

PIN 1 = GROUND (SHIELD)

PIN 2 = HOT (+)

PIN 3 = COLD (-)



## BEFORE CONNECTING THE SPEAKER

On the back panel you will find all the controls, the signal and current inputs. At first verify that the voltage selector on the speaker is in proper position for your country (115 Volt or 230 Volt).

The switch shall be in proper position (unless moved from unauthorized people), but a fast check will avoid problems. In case is necessary to change the voltage please call your vendor or authorized RCF SERVICE CENTRE. This operation require the substitution of the fuse value and is reserved to an RCF SERVICE CENTRE.

## BEFORE TURNING ON THE SPEAKER

At this point you can connect the power supply cable and the signal cable, but before turning on the speaker make sure that the volume control is at the minimum level (even on the mixer output). It is important that the mixer is already ON before turning on the speaker. This will avoid damage to the speakers and noisy "bumps" due to turning on parts on the audio chain. It is a good practice to always turn on speakers at last and turn them off immediately after the show.

Now you can turn ON the speaker and adjust the volume control to a proper level.

## INSTALLATION

A 35 mm socket for mounting the loudspeaker on a speaker stand is provided in the bottom of the cabinet. ART speakers MUST be used only with approved rigging hardware.



**WARNING:** Never suspend ART speakers by there handles. Handles are intended for transportation, not for rigging.

**WARNING:** The use of these speakers with Stand and Pole Mount accessories can be done by qualified and experienced personnel only, trained appropriately on professional systems installations. In any case it's the user's final responsibility to ensure the system safety conditions and avoid any danger or damage to people, animals and objects.

**WARNING:** To use this product with the subwoofer pole-mount, before installing the system, please verify the allowed configurations and the indications regarding the accessories, on the RCF website to avoid any danger and damages to people, animals and objects. In any case, please assure the subwoofer which is holding the speaker is located on an horizontal floor and without inclinations.

## PROTECTIONS

ART Series active speakers are equipped with a complete system of protection circuits. Two led on the amplifier back panel indicate the working status of the amplifier: the green led indicate that the speaker is ON and the red led is on when the protection circuit is active. The circuit is acting very gently on audio signal, controlling level and maintaining distortion at acceptable level. If this led is ON for a long period is better to reduce immediately the signal level from the mixer or from the speaker volume control.

## VOLTAGE SETUP (RESERVED TO THE RCF SERVICE CENTRE)

200-240 Volt, 50 Hz SETUP:








FUSE VALUE T 3.15 A L 250V

100-120 Volt, 60 Hz SETUP:

FUSE VALUE T6.3 A L 250V

# SPECIFICATIONS



ACOUSTICAL	ART 708-A 	ART 710-A 	ART 712-A 	ART 715-A 	ART 732-A 	ART 735-A 	ART 745-A 
Frequency response	60 - 20 kHz	50 - 20 kHz	50 - 20 kHz	45 - 20 kHz	50 - 20 kHz	45 - 20 kHz	45 - 20 kHz
Max SPL	127 dB	129 dB	129 dB	130 dB	131 dB	132 dB	133 dB
Horizontal Coverage	90°	90°	90°	90°	90°	90°	90°
Vertical Coverage	70°	70°	60°	60°	60°	60°	60°
Crossover point	1.600 Hz	1.600 Hz	1.600 Hz	1.600 Hz	700 Hz	800 Hz	650 Hz
TRANSDUCERS							
Low frequency	8", 2" v.c.	10", 2.5" v.c.	12", 2.5" v.c.	15", 2.5" v.c.	12", 2.5" v.c.	15", 3.5" v.c.	15", 3.5" v.c.
High frequency	1", 1.5" v.c.	1", 1.7" v.c.	1", 1.7" v.c.	1", 1.7" v.c.	1.4", 3.0" v.c.	1.4", 3.0" v.c.	1.5", 4.0" v.c.
AMPLIFIER							
Total power PEAK	800 Watt	1400 Watt	1400 Watt	1400 Watt	1400 Watt	1400 Watt	1400 Watt
Low section PEAK	600 Watt	1000 Watt	1000 Watt	1000 Watt	1000 Watt	1000 Watt	1000 Watt
High section PEAK	200 Watt	400 Watt	400 Watt	400 Watt	400 Watt	400 Watt	400 Watt
Total power RMS	400 Watt	700 Watt	700 Watt	700 Watt	700 Watt	700 Watt	700 Watt
Low section RMS	300 Watt	500 Watt	500 Watt	500 Watt	500 Watt	500 Watt	500 Watt
High section RMS	100 Watt	200 Watt	200 Watt	200 Watt	200 Watt	200 Watt	200 Watt
Inrush Current	10,1 A According to EN 55013-1: 2009						
CONNECTIONS							
Signal input/output	Jack-XLR female / XLR male						
Power input	VDE AC socket						
ANALOG INPUT							
2 way equalisation, crossover filtering							
Soft limiter							
RMS limiter							
MECHANICAL							
Size	480x291x276	548x340x305	637x387x363	708x437x389	637x384x363	708x437x389	708x437x389
Weight	10,4 Kg	14,2 Kg	17,8 Kg	19,6 Kg	17,8 Kg	21,4 Kg	18,8 Kg
Colour	Black	Black	Black	Black	Black	Black	Black



[www.rcf.it](http://www.rcf.it)

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