

OWNER MANUAL

SUB 702-AS II
SUB 705-AS II
SUB 708-AS II

PROFESSIONAL ACTIVE
SUBWOOFER SYSTEMS





ENGLISH
ITALIANO

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10

**SAFETY PRECAUTIONS**

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

2. POWER SUPPLY FROM MAINS

- a. The mains voltage is sufficiently high to involve a risk of electrocution; install and connect this product before plugging it in.
- b. 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.
- c. 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.
- d. Protect the power cable from damage; make sure it is positioned in a way that it cannot be stepped on or crushed by objects.
- e. 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 get into this product, 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 operation, modification or repair that is not expressly described in this manual.

Contact your authorized service centre or qualified personnel if 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.

5. If this product is not used for a long period, disconnect the power cable.

6. If this product begins to emit any strange smell or smoke, switch it off immediately and disconnect the power cable.

7. Do not connect this product to any equipment or accessory 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.

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.

IMPORTANT



10. There are numerous mechanical and electrical factors to consider 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 manual technical specifications to know the maximum sound pressure level.

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.

IMPORTANT NOTES



OPERATING PRECAUTIONS



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.

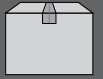
IMPORTANT NOTES



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

WARNING





Evolution in technology, revolution in sound.

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

Every detail of the Sub Series has been carefully studied to offer recreational and professional musicians 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.

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

All the transducers in Sub Series speakers feature high power magnets to guarantee the best performance and power handling.

Sub Series Subwoofers are equipped with a new generation of **700 Watt Digital Amplifiers**. The result is a very high output, extremely low distortion and an incredible natural sound.

Each amplifier presents Stereo XLR balanced inputs, XLR output link, volume and a switchable crossover (80 Hz / 110 Hz).

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

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

The Sub Series Subwoofer cabinets are built in birch plywood and are designed to dampen down vibrations even at maximum volume settings. The reflex porting has been resized to offer a better efficiency. The cabinet is equipped with 2 ergonomically designed side handles with rubber handgrip. At the top a rugged steel pole mount has been installed in all models.

COMPONENTS

AMPLIFIERS

CABINETS



- 1 Stereo female XLR inputs (bal/unbal).
- 2 Limiter led: the amplifier has a built in limiter circuit to prevent amplifier clipping or transducers overdriving. 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 Power led: this green led is ON when the speaker is connected to the main power supply and the ON/OFF is in ON position.
- 5 Male XLR signal/xover output: the output XLR connector provides a loop trough for speakers daisy chaining (or provides a crossover output when the crossover switch is pushed).
- 6 Volume control: adjusts the amplifier volume.
- 7 Link/xover out switch: the output link is flat when the switch is OFF (the output signal is the same as the input signal), or is high passed when the switch is ON (to connect a satellite speaker).
- 8 Xover switch: this switch sets the crossover frequency of the OUTPUT SIGNAL at 80 Hz or 120 Hz.
- 9 Phase switch: this switch reverses the phase of the output signal.
- 10 IEC AC sockets: the IEC AC socket provides IN-OUT connections for the power cord to the socket and additional power link.
- 11 Power main switch: the power switch turns the AC power ON and OFF.

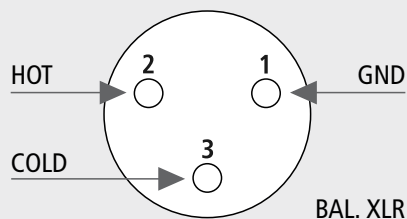


The XLR connectors use the following AES standard:

PIN 1 = GROUND (SHIELD)

PIN 2 = HOT (+)

PIN 3 = COLD (-)



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 changing the voltage is necessary, please call your vendor or authorized RCF SERVICE CENTRE. This operation requires the substitution of the fuse value and is reserved to an RCF SERVICE CENTRE.

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.

CONNECTIONS

BEFORE CONNECTING THE SPEAKER

BEFORE TURNING ON THE SPEAKER

INSTALLATION



A 35 MM socket for mounting the loudspeaker on a speaker stand is provided on the top of the cabinet.

IMPORTANT NOTES

Never suspend SUB speakers by their handles. Handles are intended for transportation, not for rigging.

IMPORTANT NOTES



PROTECTIONS

Sub Series active speakers are equipped with a complete system of protection circuits. Two leds on the amplifier back panel indicate the working status of the amplifier: the green led indicates 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 stays ON for a long period it is better to reduce immediately the signal level from the mixer or from the speaker volume control.

230 Volt, 50 Hz SETUP: FUSE VALUE T3,15 A - 250V

115 Volt, 60 Hz SETUP: FUSE VALUE T6,30 A - 250V

VOLTAGE SETUP

(RESERVED TO THE RCF SERVICE CENTRE)



ACOUSTIC DATA

Frequency response

SUB 702-AS II	40 - x - over point
SUB 705-AS II	40 - x - over point
SUB 708-AS II	35 - x - over point

Max SPL

SUB 702-AS II	129 dB
SUB 705-AS II	131 dB
SUB 708-AS II	133 dB

Crossover point

SUB 702-AS II	80 - 110 Hz
SUB 705-AS II	80 - 110 Hz
SUB 708-AS II	80 - 110 Hz

TRANSDUCERS

SUB 702-AS II	12", 2,5" voice coil
SUB 705-AS II	15", 3,0" voice coil
SUB 708-AS II	18", 3,0" voice coil

AMPLIFIER

Total power	1400 Watt Peak, 700 Watt RMS
Power input	Power input VDE AC socket

GENERIC

Signal input/output

Stereo XLR male / XLR female
Phase, crossover switches

Controls

Analog input

Hi pass, low pass crossover filtering, equalisation
Fast limiter
RMS limiter

PHISICAL SPECIFICATIONS

Dimensions (w, h, d)

SUB 702-AS II	498 mm, 354 mm, 487 mm
SUB 705-AS II	498 mm, 430 mm, 595 mm
SUB 708-AS II	700 mm, 505 mm, 665 mm

Net weight

SUB 702-AS II	17.5 Kg
SUB 705-AS II	27 Kg
SUB 708-AS II	36,8 Kg

Colour

Black

www.rcf.it



RCF SpA: Via Raffaello, 13 - 42124 Reggio Emilia > Italy
tel. +39 0522 274411 - fax +39 0522 274484 - e-mail: rcfservice@rcf.it

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