








SUB 15-AS

SUB 18-AS

PROFESSIONAL SUBWOOFERS

1. SAFETY PRECAUTIONS AND GENERAL INFORMATION

The symbols used in this document give notice of important operating instructions and warnings which must be strictly followed.

	CAUTION	Important operating instructions: explains hazards that could damage a product, including data loss
	WARNING	Important advice concerning the use of dangerous voltages and the potential risk of electric shock, personal injury or death.
	IMPORTANT NOTES	Helpful and relevant information about the topic
	SUPPORTS, TROLLEYS AND CARTS	Information about the use of supports, trolleys and carts. Reminds to move with extreme caution and never tilt.
	WASTE DISPOSAL	This symbol indicates that this product should not be disposed with your household waste, according to the WEEE directive (2012/19/EU) and your national law.

IMPORTANT NOTES

This manual contains important information about the correct and safe use of the device. 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.

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

- 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 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.
- Be careful: in the case of a product supplied by manufacturer only with POWERCON connectors and without a power cord, jointly to POWERCON connectors type NAC3FCA (power-in) and NAC3FCB (power-out), the following power cords compliant to national standard shall be used:
 - EU: cord type H05VV-F 3G 3x2.5 mm2 - Standard IEC 60227-1
 - JP: cord type VCTF 3x2 mm2; 15Amp/120V~ - Standard JIS C3306
 - US: cord type SJT/SJTO 3x14 AWG; 15Amp/125V~ - Standard ANSI/UL 62

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 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 emitting any strange odours or smoke, switch it off immediately and disconnect the power cable.

7. 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.

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, trolleys and carts.



The equipment should be only used on supports, trolleys and carts, where necessary, that are recommended by the manufacturer. The equipment / support / trolley / cart assembly must be moved with extreme caution. Sudden stops, excessive pushing force and uneven floors may cause the assembly to overturn. Never tilt the assembly.

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 manual technical specifications to know the maximum sound pressure level.

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

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**



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



WARNING! To prevent electric shock hazard, do not connect to mains power supply while grille is removed



WARNING! to reduce the risk of electric shock, do not disassemble this product unless you are qualified. Refer servicing to qualified service personnel.

CORRECT DISPOSAL OF THIS PRODUCT



This product should be handed over to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority or your household waste disposal service.

CARE AND MAINTENANCE

To ensure a long-life service, this product should be used following these advices:

- If the product is intended to be set up outdoors, be sure it is under cover and protected to rain and moisture.
 - If the product needs to be used in a cold environment, slowly warm up the voice coils by sending a low-level signal for about 15 minutes before sending high-power signals.
 - Always use a dry cloth to clean the exterior surfaces of the speaker and always do it when the power is turned off.
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CAUTION: to avoid damaging the exterior finishes do not use cleaning solvents or abrasives.



WARNING! CAUTION! For powered speakers, do cleaning only when the power is turned off.

RCF S.p.A. reserves the right to make changes without prior notice to rectify any errors and / or omissions.

Always refer to the latest version of the manual on www.rcf.it.

2. DESCRIPTION

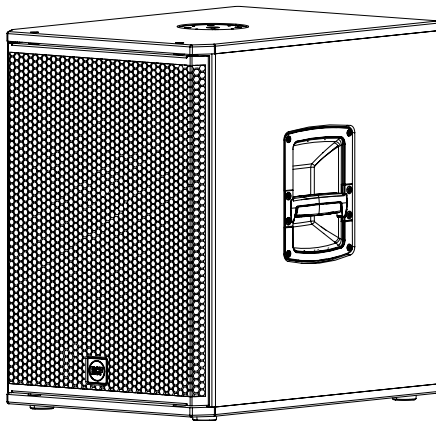
SUB 15-AS and SUB 18-AS

SUB 18-AS and SUB 15-AS are portable high-power active subwoofer for live sound applications. They feature a state-of-the-art transducer and a powerful 2200 Watts Class-D amplifier that delivers sound pressure levels up to 133 dB (SUB 15-AS) and 135 dB (SUB 18-AS) with exceptional headroom. Designed as the ideal complement for 10", 12", or 15" loudspeakers, they include Bass Motion Control algorithm for extended bass response at any volume. The rear panel provides stereo in/out XLR connections and controls including volume, polarity, and crossover frequency selection. The rugged all-wood cabinet with scratch-resistant polyurea coating makes it durable, easy to carry, and install securely. With their versatility, sound quality, and high power output, these subwoofers are perfect for small to mid-sized venues and portable applications.

RCF 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. Every detail of the Sub 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.

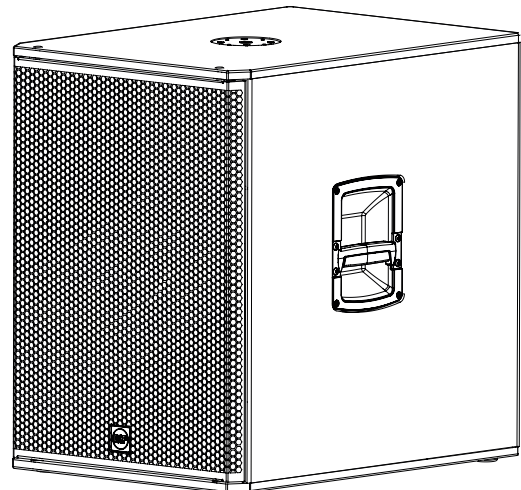
All transducers are precision built taking advantage of RCF's superior molding, assembly technologies, and a wealth of professional knowledge and experience dedicated to achieving extremely high standards. All the transducers in Sub Series speakers feature high-power magnets in order to guarantee the best performance and power handling. Sub Series Subwoofers are equipped with a new generation of Class-D Amplifiers. The result of this is a very high output, extremely low distortion, and an incredible natural sound.

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 while retaining perfect ergonomics and results from extensive combined functional and acoustic research. The Sub Series Subwoofer cabinets are built in polyurea-coated birch plywood and are designed to dampen down vibrations even at maximum volume settings. The reflex porting has been resized to offer better efficiency. The cabinets are equipped with ergonomically designed forged aluminum handles with rubber handgrip. Rugged steel pole mount has been installed in all models.



SUB 15-AS

2200 Watt
Frequency Response: 35 Hz ÷ 400 Hz
15" Woofer, 3.0" v.c
30 kg / 66.14 lbs



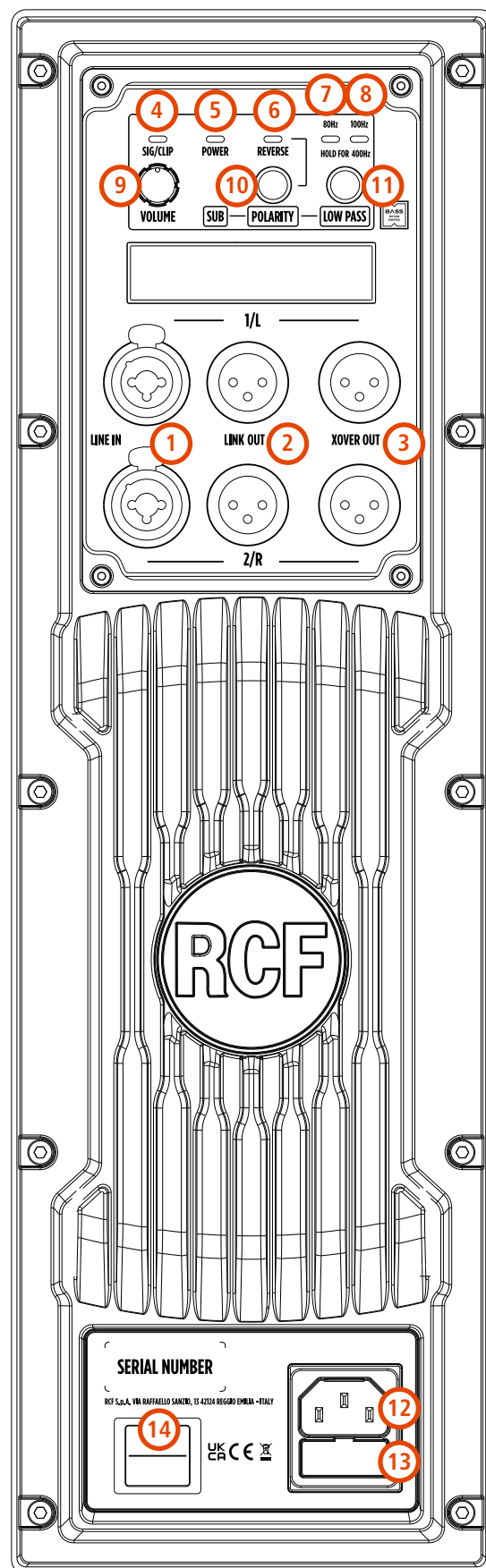
SUB 18-AS

2200 Watt
Frequency Response: 20 Hz ÷ 400 Hz
18" Woofer, 4.0" v.c
37.6 kg / 82.89 lbs

3. REAR PANEL FEATURES AND CONTROLS

EN

- 1 LINE IN COMBO XLR-JACK INPUTS (BAL/UNBAL)** The system accepts jack or XLR input connectors. A LINE LEVEL signal can be applied to these inputs.
- 2 LINK OUT MALE XLR SIGNAL OUTPUT** The output XLR connectors provide a loop trough for speakers daisy chaining.
- 3 XOVER MALE XLR SIGNAL OUTPUT** The output XLR connector provides a signal trough for speakers according with the internal high-pass filter set to 80Hz .
- 4 SIG/CLIP LED** The signal indicator lights green if there is signal present on the main COMBO input. The LED lights red in presence of signal overload. It is okay if the clip LED blinks RED occasionally. If the LED blinks red frequently or lights red continuously, turn down the signal level.
- 5 POWER LED** The signal indicator lights green when the subwoofer is turned on.
- 6 REVERSE LED** The signal indicator lights yellow when POLARITY button **10** is pressed. When the led lights the polarity of the signal sent to the woofer is reversed.
- 7 80Hz - 100Hz LEDs.** These leds indicate the SUB LOW PASS frequency selected accordingly with the button SUB LOW PASS **11**. When both leds are off, the SUB LOW PASS is set to a low pass frequency of 400Hz.
- 9 VOLUME CONTROL** Adjusts the master volume.
- 10 SUB POLARITY BUTTON** Sets the polarity of the signal directed to the woofer. When pushed, the led **6** lights in yellow and the woofer polarity is reversed.
- 11 SUB LOW PASS BUTTON** Sets the frequency of the low pass filter of the signal fed to the woofer. 80Hz, 100Hz accordingly with the yellow led **7** and **8**. When both leds are off, the SUB LOW PASS is set to a low pass frequency of 400Hz. Press and hold this button to set SUB LOW PASS to 400 Hz.
- 12 STANDARD 3-PRONG IEC SOCKET** Power connection.
- 13 FUSE CARRIER** Mains fuse housing.
- 14 POWER MAIN SWITCH** The power switch turns the AC power ON and OFF.



⚡ ! WARNING! CAUTION! Loudspeaker connections should be only made by qualified and experienced personnel having the technical know-how or enough 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.

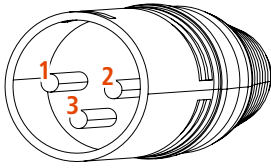
Before turning the system on, check all connections and make sure there are no accidental short circuits.

The entire sound system shall be designed and installed in compliance with the current local laws and regulations regarding electrical systems.

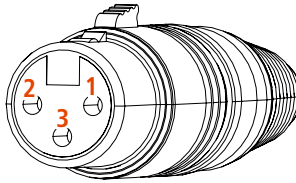
4. CONNECTIONS

The connectors must be wired according to the standards specified by the AES (Audio Engineering Society).

MALE XLR CONNECTOR
Balanced wiring

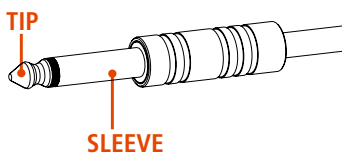


FEMALE XLR CONNECTOR
Balanced wiring

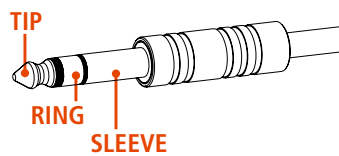


PIN 1 = GROUND (SHIELD)
PIN 2 = HOT (+)
PIN 3 = COLD (-)

TRS CONNECTOR
Unbalanced mono wiring



TRS CONNECTOR
Balanced mono wiring



SLEEVE = GROUND (SHIELD)
TIP = HOT (+)
RING = COLD (-)

BEFORE CONNECTING THE SPEAKER

On the rear panel you will find all the controls, signal and power inputs. At first verify the voltage label applied to the rear panel (115 Volt or 230 Volt). The label indicates the right voltage. If you read a wrong voltage on the label or if you can't find the label at all, please call your vendor or authorized RCF SERVICE CENTRE before connecting the speaker. This fast check will avoid any damage.

In case of need of changing the voltage please call your vendor or authorized RCF SERVICE CENTRE. This operation requires the replacement of the fuse value and is reserved to an RCF SERVICE CENTRE.

BEFORE TURNING ON THE SPEAKER

You can now connect the power supply cable and the signal cable. Before turning on the speaker make sure 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 damages to the speaker and noisy "bumps" due to turning on parts on the audio chain. It is a good practice to always turn on the speakers at last and turning them off immediately after their use. You can now turn ON the speaker and adjust the volume control to a proper level.

PROTECTIONS

RCF Sub Series active speakers are equipped with a complete system of protection circuits. The circuit is acting very gently on audio signal, controlling level and maintaining distortion at acceptable level.

VOLTAGE SETUP (RESERVED TO THE RCF SERVICE CENTRE)

200-240 Volt, 50 Hz (FUSE VALUE T6.3 A L 250V)

100-120 Volt, 60 Hz (FUSE VALUE T6.3 A L 250V)

THE SPEAKER DOESN'T TURN ON

Make sure the speaker is switched on and connected to an active AC power

THE SPEAKER IS CONNECTED TO AN ACTIVE AC POWER BUT DOESN'T TURN ON

Make sure the power cable is intact and connected correctly.

THE SPEAKER IS ON BUT DOESN'T MAKE ANY SOUND

Check if the signal source is sending correctly and if the signal cables are not damaged.

THE SOUND IS DISTORTED AND THE OVERLOAD LED BLINKS FREQUENTLY

Turn down the output level of the mixer.

THE SOUND IS VERY LOW AND HISSING

The source gain or the output level of the mixer might be too low.

THE SOUND IS HISSING EVEN AT PROPER GAIN AND VOLUME

The source might send a low quality or noisy signal

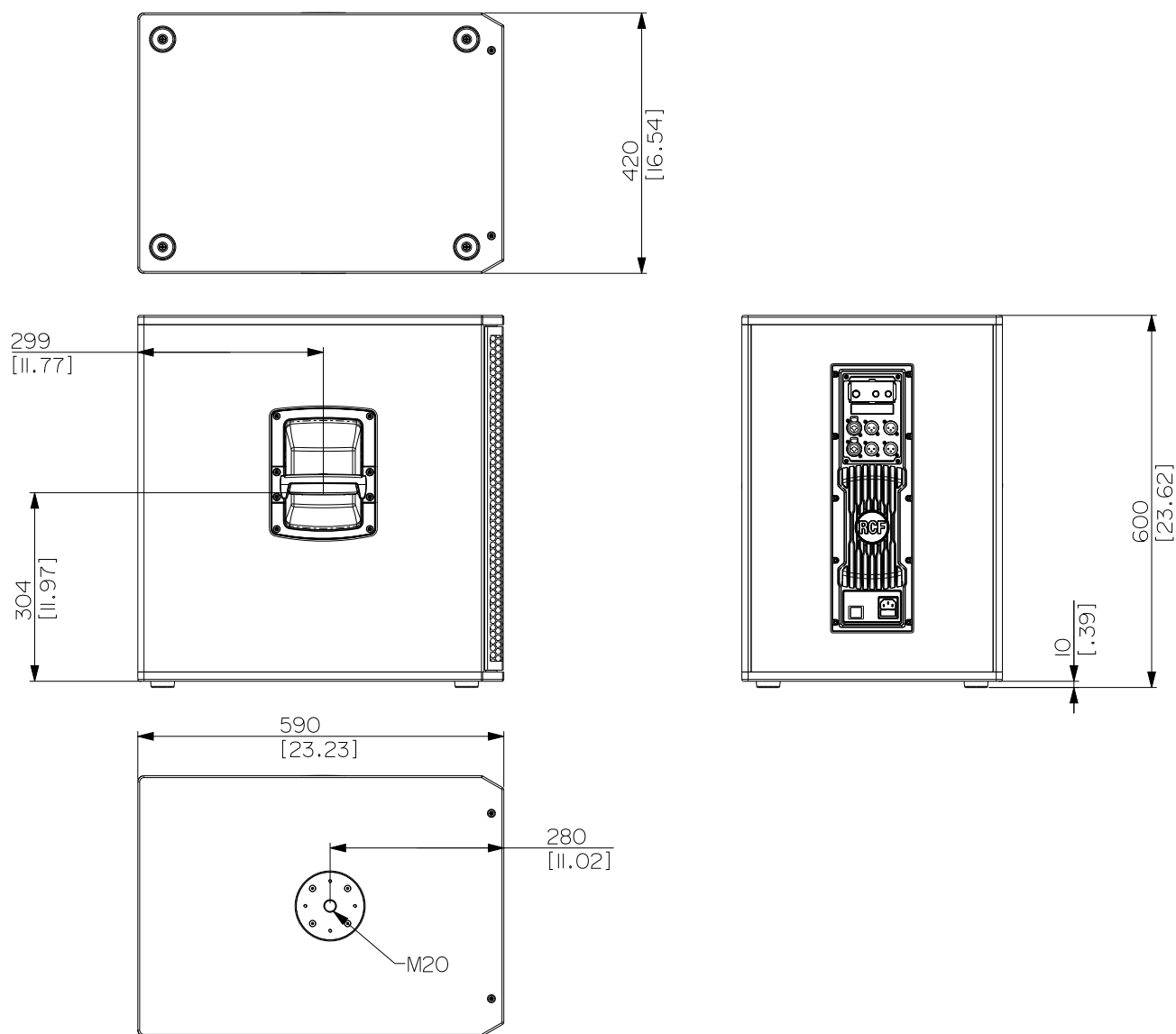
HUMMING OR BUZZING NOISE

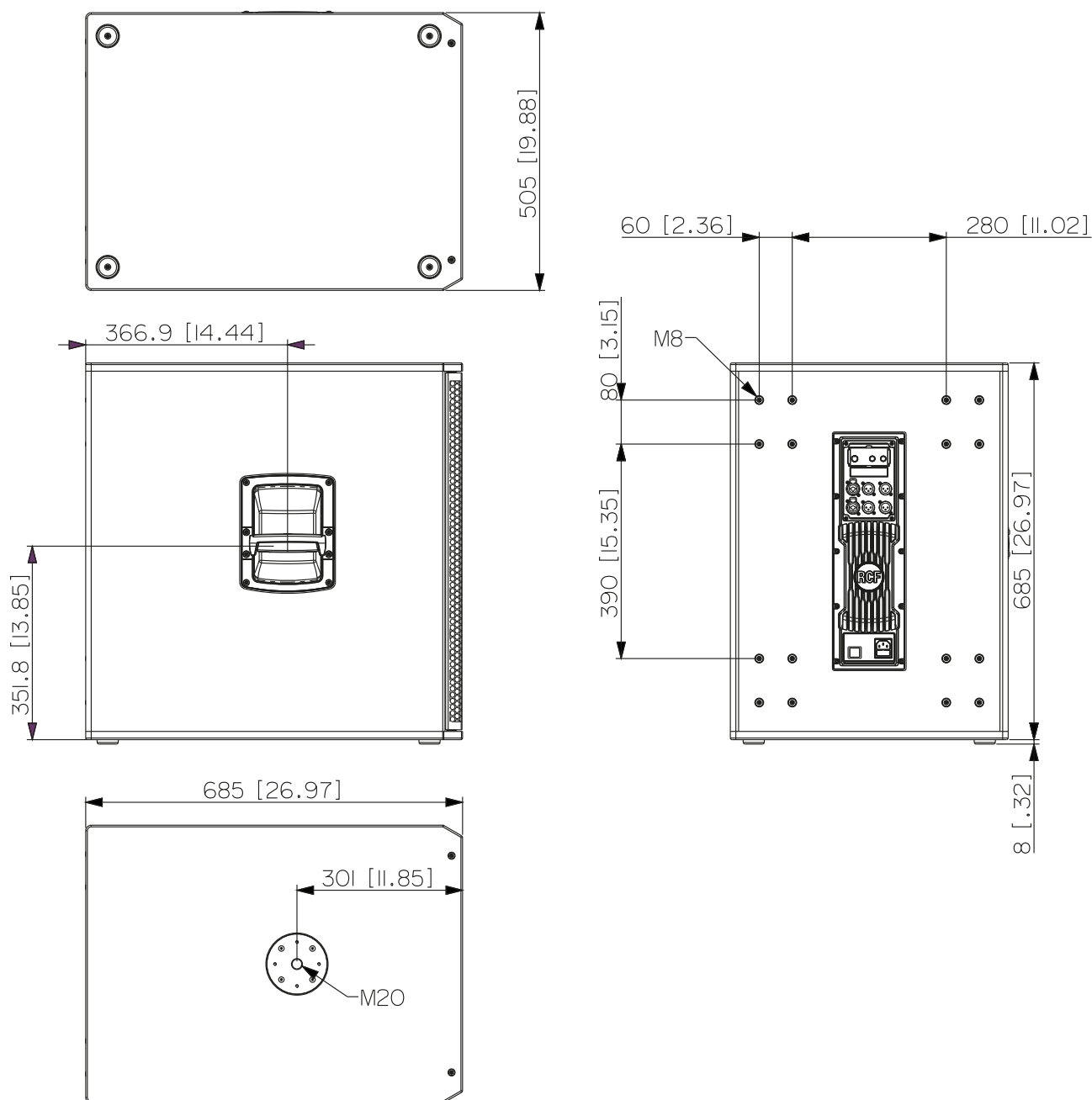
Check out the AC grounding and all the equipments connected to the mixer input including cables and connectors.



WARNING! to reduce the risk of electric shock, do not disassemble this product unless you are qualified. Refer servicing to qualified service personnel.

SUB 15-AS DIMENSION





SPECIFICATIONS

	TECHNICAL SPECIFICATIONS	SUB 15-AS	SUB 18-AS
Acoustical specifications	Frequency Response Max SPL @ 1m	35 Hz ÷ 400 Hz 133 dB	20 Hz ÷ 400 Hz 135 dB
Transducers	Woofers	1 x 15", 3.0" v.c	1 x 18", 4.0" v.c
Input/Output section	Input signal Input connectors Output connectors Input sensitivity	bal/unbal Combo XLR/Jack XLR -2 dBu/+4 dBu	bal/unbal Combo XLR/Jack XLR -2 dBu/+4 dBu
Processor section	Protections Limiter Controls	Thermal Soft Limiter Volume, Polarity, Low pass filter frequency	Thermal Soft Limiter Volume, Polarity, Low pass filter frequency
Power section	Total Power Cooling Connections	2200 W Peak Convection VDE	2200 W Peak Convection VDE
Standard compliance	Safety agency	CE compliant	CE compliant
Physical specifications	Cabinet/Case Material Handles Pole mount/Cap Grille Color	Baltic birch plywood 1 each side M20 thread Steel with clothing Black	Baltic birch plywood 2 side M20 thread Steel with clothing Black
Size / Weight	Height Width Depth Weight	590 mm / 23.23 inches 420 mm / 16.54 inches 590 mm / 23.23 inches 30 kg / 66.14 lbs	693 mm / 27.28 inches 505 mm / 19.88 inches 685 mm / 26.97 inches 37.6 kg / 82.89 lbs