

MIXING CONSOLES

F 6X

OWNER MANUAL
MANUALE UTENTE

HIGH PERFORMANCE PROFESSIONAL
COMPACT LIVE MIXER

MIXER PROFESSIONALE LIVE
COMPATTO AD ALTE PRESTAZIONI



ENGLISH 4

ITALIANO 12

SAFETY PRECAUTIONS

Before connecting and using this product, read the instructions provided in this manual carefully and keep it for future reference.

This manual is an integral part of the product and it must accompany it even in the case of changes of ownership, so that the new owner is aware of the method of installation and use and all safety warnings. Incorrect installation and use of the product shall relieve RCF S.p.A. of any and all liability.

CAUTION: to prevent the risk of flames or electric shock, do not ever expose this product to the rain or humidity.



WARNINGS

1. All warnings, in particular those relating to safety, must be read with special attention, as they contain important information.
2. **MAIN SUPPLY FROM THE MAINS**
 - **The supply voltage of the device is sufficiently high to constitute a risk of electric shock to persons: never install or connect the device with the power supply cable plugged into the mains.**
 - **Before powering this product, make sure that all connections are correct and that the voltage of your mains supply matches the value on the device data plate; if this is not the case, please contact an RCF dealer.**
 - **The metal parts of the device are earthed via the power supply cable.**
 - **A device with CLASS I construction must be connected to the mains socket with a protective earthing connection.**
 - **Make sure that the power supply cable of the device cannot be stepped on or crushed by objects, to make sure it remains intact and in perfect working order.**
 - **To avoid the risk of electric shock, never open the device: there are no parts that can be used by the user inside.**
3. Do not allow objects or liquids to penetrate the product, as this may cause a short circuit. The device must not be exposed to dripping or splashing water; no naked flame sources (e.g. lighted candles) and no objects filled with liquid (e.g. vases) must be placed on top of the device.
4. Do not perform any work / modifications / repairs except for those expressly described in this manual. Contact an authorised service centre or highly qualified personnel when:
 - **the device is not working (or is working abnormally);**
 - **the power supply cable has been seriously damaged;**
 - **objects or liquids have penetrated the device;**
 - **the device has undergone major knocks.**
5. If this product is not used for long periods of time, unplug the power supply cable from the mains.
6. If the product releases abnormal odours or smoke, turn off the power immediately and unplug the power supply cable.
7. Do not connect this product to other devices and accessories not envisaged. Do not try to hang this product using elements that are not designed or suitable for this purpose. To avoid the risk of falling, do not stack multiple units of this product, unless this option is expressly specified in the instruction manual.
8. **RCF S.p.A. strongly recommends that the installation of this product be carried out only by professional qualified installers (or specialised installation companies) able to do it properly and to certify installation in accordance with the applicable regulations in force. The entire audio system must comply with the applicable rules and regulations regarding electrical systems.**
9. **Stands and Carts**
Where envisaged, the product should only be used on carts or stands recommended by the manufacturer. The device-stand / device-cart assembly should be moved with the utmost care. Sudden stops, excessive pushing force and uneven or tilted floors could cause the assembly to overturn.
10. **Hearing loss**
Exposure to high sound levels can cause permanent hearing loss. The sound pressure level dangerous to one's hearing varies greatly from one person to another and depends on the duration of exposure. To avoid potentially dangerous exposure to high sound pressure levels, anyone who is exposed to these levels must use adequate protection; when a transducer capable of producing high sound levels is in use, ear plugs or protective headsets must be worn. See the technical instruction data to find out the maximum sound pressure levels that the speakers are capable of producing.
11. Place the product away from heat sources and ensure adequate air circulation all around.
12. Do not overload this product for extended periods of time.
13. Never force the controls (buttons, knobs, etc.).
14. Do not use solvents, alcohol, petrol or other volatile substances to clean the external parts of the unit; use a dry cloth.
15. Do not point microphones near and in front of the speakers, so as to avoid any feedback ("Larsen effect").



IMPORTANT

NOTE ON CABLES FOR AUDIO SIGNALS

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

- **equipment that produces strong electromagnetic fields;**
- **cables from the power mains;**
- **speaker lines.**

INFORMATION ON THE DEVICE

Thank you for purchasing an RCF mixing console.

F 6X is a versatile audio mixer equipped with all the tools needed for accurately processing multiple audio signals from a variety of sources.

CLEAR SOUND

RCF mixing console devices combine RCF's professional "sound culture" heritage with innovative design and dedicated manufacturing. RCF mixing consoles produce clear sound, accurate dynamics and extreme versatility of use by passionate audio professionals. RCF mixing consoles are designed to match perfectly with RCF active speakers.

RELIABILITY

All RCF mixing consoles undergo four extensive instrumental quality tests during construction. A listening test is carried out at the end of production followed by a final quality control inspection to locate any visible defects, such as scratches or dents. The process guarantees outstanding reliability making sure that the device you have purchased is of the highest quality.

DESIGN

The unique design of RCF mixing consoles is an example of typical Italian RCF flair and creativity, packaged in a modern, ergonomic design. In addition to their striking appearance, the original side profiles of the mixers makes them easy to grasp securely.

DESCRIPTION AND MAIN CHARACTERISTICS

F 6X is a versatile analogue audio mixer, equipped with all the tools required for accurate processing of multiple audio signals from different sources. F 6X provides an internal PRO DSP FX: the DSP unit offers 16 predefined effects presets: 10 reverbs, 3 delays and 3 modulation effects.

F 6X AUDIO INPUTS

- **CHANNELS 1 and 2: Microphone or Line inputs with separate XLR and TRS jack connectors, three-band EQ.**
- **CHANNELS 3/4 and 5/6: STEREO inputs for LINE level stereo signals (RCA or double TRS jack) with two-band equalizer.**

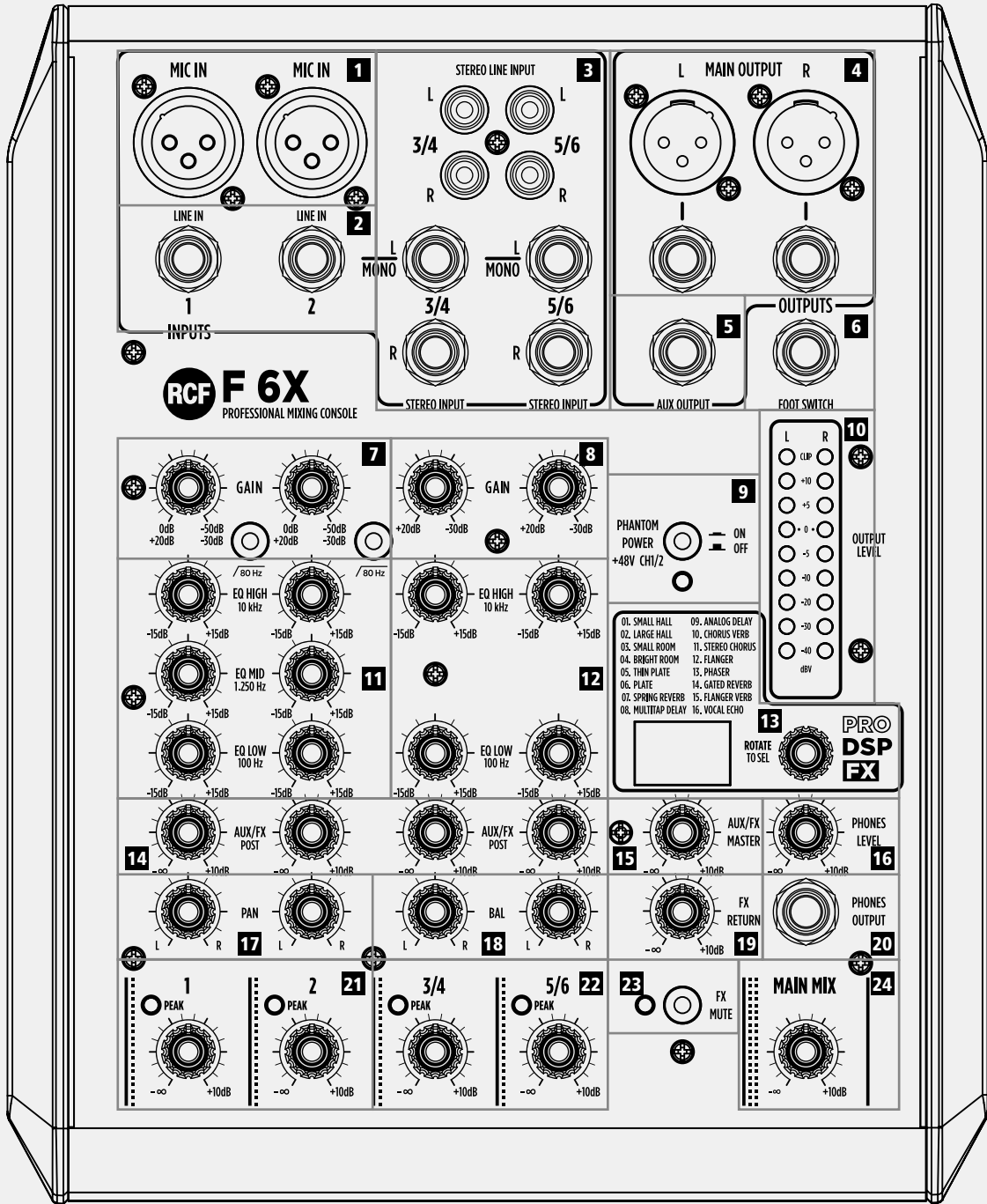
F 6X AUDIO OUTPUTS

- **MAIN MIX main stereo output with XLR male connectors (balanced) and TRS jack.**
- **1 AUX/FX SEND auxiliary send (TRS jack).**
- **1 FOOTSWITCH jack socket (TS jack) for foot control for the activation or deactivation of effects.**
- **1 PHONES headphone outputs (1/4" stereo jack)**
- **External PSU 100 V-240 V, 50-60 Hz, 24 W - Supplier: GME, Model: GME 24A-120200FXR**

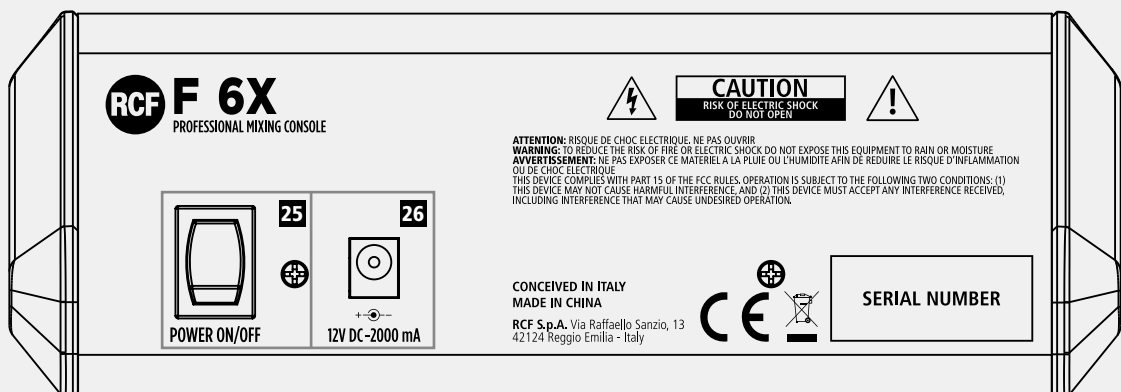
PHYSICAL SPECIFICATIONS

- **Dimensions: L = 210 mm, W = 252 mm, H = 80 mm**
- **Weight: 1,8 Kg**

FRONT PANEL



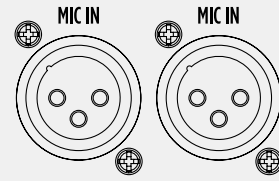
REAR PANEL



FRONT PANEL FUNCTIONS

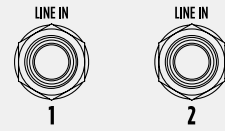
[1] MIC INPUTS

RCF F 6X provides 2 mono Mic inputs via XLR connectors. The Balanced XLR Microphone preamp input provides a gain range from 0 dB to -50 dB. All the F 6X's MIC-LINE inputs are supplied with an 80 Hz Hi-pass filter. Enable the 80 Hz Hi-Pass filter when using voice microphone to reduce low frequency pop, bump and rumble noise (see section [7] of this manual). +48 V Phantom Power is provided for the Mic input: 1-2. Enable the Phantom power in the presence of Condenser and Electret Microphones or in the event of D.I. box usage (see section [9]).



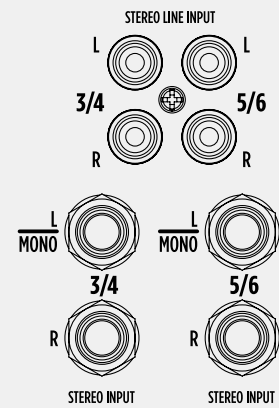
[2] LINE INPUTS

Line inputs TRS jack 1 and 2 provide a gain of +20 dB to -30 dB to line level signals.



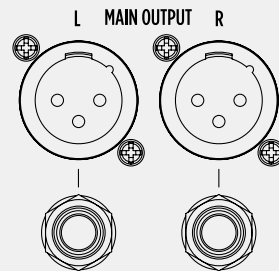
[3] STEREO INPUTS

RCA and TRS jacks 3/4 and 5/6 provide stereo inputs for line sources. Note that MONO sources can be connected to jack inputs 3 and 5.



[4] MAIN OUTPUTS

These XLR male connectors provide +4 dB balanced audio output coming from MAIN MIX. Connect your main speaker system to XLRs, named L and R. The audio level of MAIN MIX OUT L and R is controlled by the dedicated MAIN MIX rotary knob (see section [24] of this manual). L and R XLR MAIN MIX outputs are replicated with L and R TRS jack.



[5] AUX/FX OUTPUT

This TRS jack connector provides +4 dB balanced audio output from the auxiliary send. Connect your stage monitors or external effects input here.



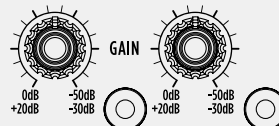
[6] FOOTSWITCH

This TS jack connector allows the use of MOMENTARY switches or foot pedals to MUTE and UN-MUTE the audio from the internal FX return. When the FX is muted via footswitch the red LED near the FX MUTE button lights up (see the section [23] of this manual). In this state, the effect can be unmuted either by pressing the FX MUTE button or the FOOTSWITCH again.



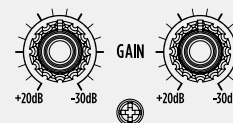
[7] CHANNEL 1 AND 2 GAIN

MIC input (XLR). This control permits the gain for MIC input to be set with a range from 0 dB to -50 dB. If the LINE INPUT (TRS jack) are in use the gain range permitted is from +20 dB to -30 dB.



[8] CHANNEL 3/4 AND 5/6 GAIN

STEREO LINE INPUT (TRS jack). The control allows a gain range from +20 dB to -30 dB.



[9] +48 V SWITCH

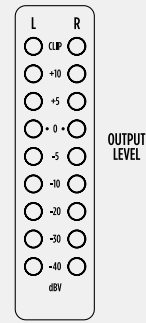
Dedicated to the Mic input this switch allows the enabling of the +48 V Phantom Power to the Mic input 1-2. Enabling the Phantom power is necessary in the presence of Condenser and Electret Microphones or in case of D.I. box usage.



FRONT PANEL FUNCTIONS

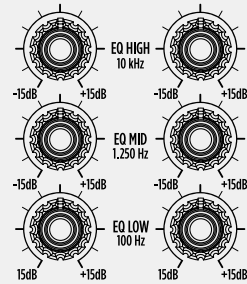
[10] LEVEL METER

This 9-LED element level meter allows you to control the Main Mix output level. Keep the output level below the "CLIP" indication to avoid overloaded signals which can cause distortion.



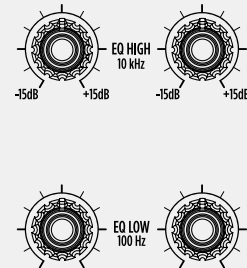
[11] MONO CHANNELS EQ

All the F 6X's mono channels are equipped with a sophisticated and precise 3-band EQ. Low frequency control sets in at 100 Hz with a gain of +/-15 dB and shelving curve. Hi frequency control sets in at 10 kHz with a gain of +/-15 dB and shelving curve. Mid frequency control sets in at 1250 Hz with a gain of +/-15 dB and bell curve.



[12] STEREO CHANNELS EQ

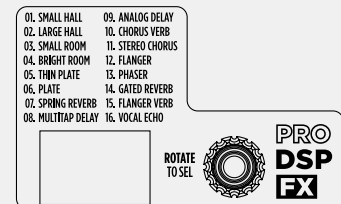
Stereo channels are provided with HIGH and LOW EQ. Low frequency control sets in at 100 Hz with a gain of +/-15 dB and shelving curve. Hi frequency control sets in at 10 kHz with a gain of +/-15 dB and shelving curve.



[13] PRO DSP FX

F 6X is equipped with an internal 16 preset FX board. Rotating the encoder allows selection between 16 great sounding effects: 10 reverbs, 3 delays and 3 modulation effects. See the list in detail:

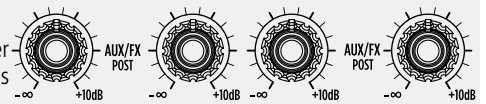
- | | | | |
|-----------------|--------------------|-------------------|--------------------|
| 01. SMALL HALL | 05. THIN PLATE | 09. ANALOG DELAY | 13. PHASER |
| 02. LARGE HALL | 06. PLATE | 10. CHORUS VERB | 14. GATED REVERB |
| 03. SMALL ROOM | 07. SPRING REVERB | 11. STEREO CHORUS | 15. FLANGER REVERB |
| 04. BRIGHT ROOM | 08. MULTITAP DELAY | 12. FLANGER | 16. VOCAL ECHO |



Select one of these effect presets to enrich your sound.

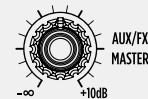
[14] AUX/FX SEND

Each channel of the F 6X mixer is equipped with an auxiliary send; the AUX/FX SEND is a post fader send. The AUX/FX send feed the internal PRO DSP FX board. The signal present in the AUX/FX send is also routed to the AUX OUTPUT jack present on the top panel (see section [5] of this manual).



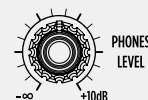
[15] AUX/FX MASTER KNOB

This potentiometer controls the MASTER level of the single AUX SEND.



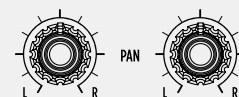
[16] PHONES LEVEL

This knob controls the level of the PHONES OUTPUT (section [20] of this manual). The Phones Output reproduces the Main Mix signal.



[17] PAN

These controls allow positioning of the signal present in the mono channel in the stereo image of the MAIN MIX.



FRONT PANEL FUNCTIONS

[18] BAL

These controls, characteristic of stereo channels, allow balancing of the position of a stereo channel into the stereo image of the MAIN MIX.



[19] FX RET ROTARY KNOB

This potentiometer controls the level of the signal coming from the internal PRO DSP FX.



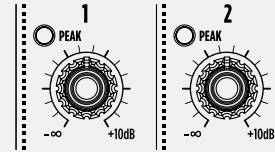
[20] PHONES OUTPUT

Connect headphones here to listen the MAIN MIX. To avoid hearing loss set the PHONES LEVEL control ([16]) to minimum (-∞) before connection and wear headphones.



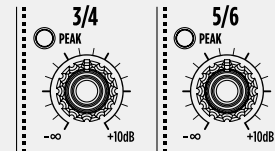
[21] MONO CHANNELS ROTARY KNOB SECTION

This section allows the control of the single level of the 2 mono input channels.



[22] STEREO CHANNELS ROTARY KNOB SECTION

This section allows the control of the single level of the 2 stereo input channels.



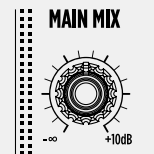
[23] FX MUTE BUTTON

The FX MUTE button, when pressed, inhibits the FX RETURN signal to flow to the Main Mix. The red LED near the FX MUTE button lights up when the FX RET channel is muted either using the button itself or via footswitch (see section [6] of this manual).



[24] MAIN MIX ROTARY KNOB

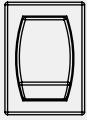
The MAIN MIX rotary knob controls the level of the MAIN MIX output.



REAR PANEL FUNCTIONS

[25] POWER SWITCH

Use this switch to turn on and off your F 6X mixer.



POWER ON/OFF

[26] EXTERNAL POWER SUPPLY INLET

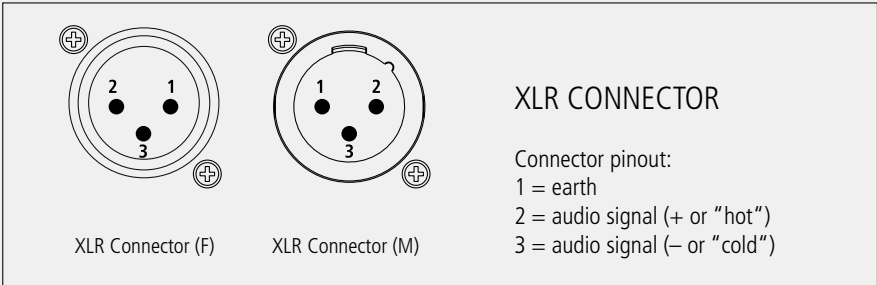
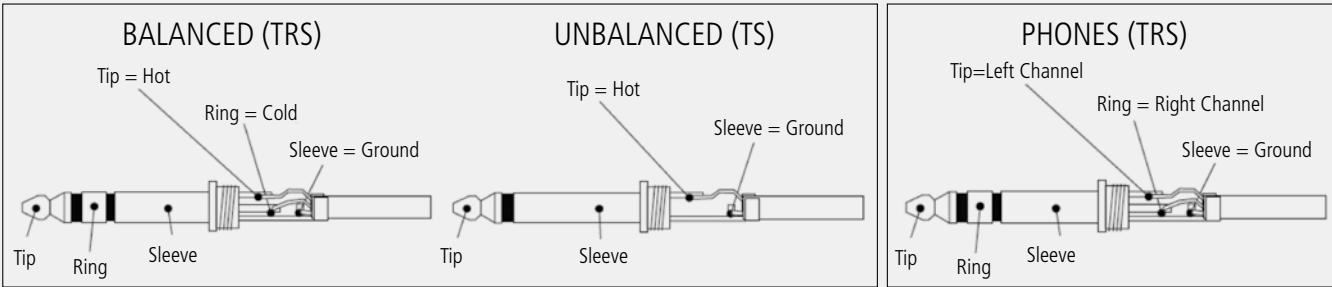
Connect here the external power supply. The external power supply accepts power from 100 V to 240 V AC 50-60 Hz.



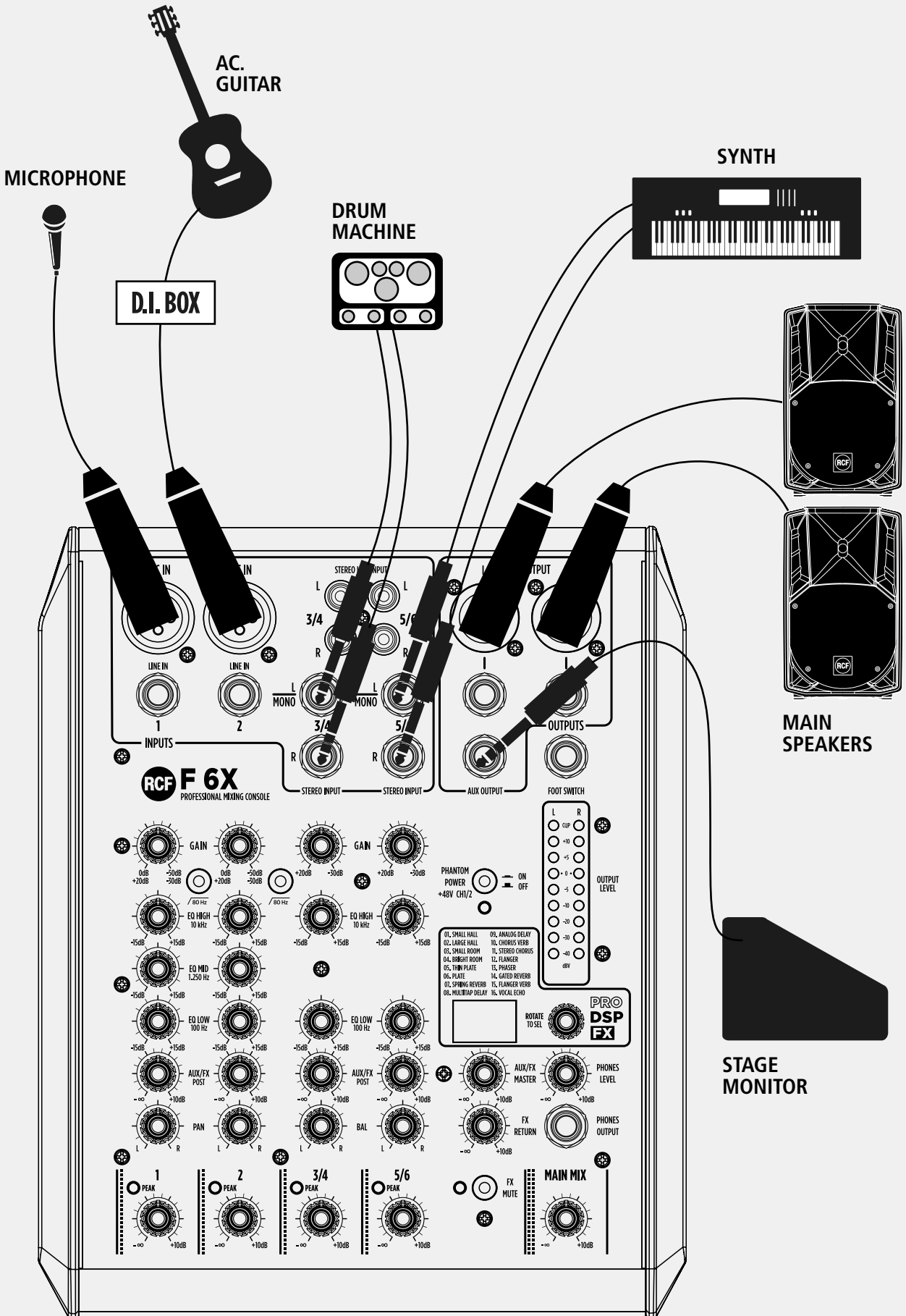
12V DC-2000 mA

CONNECTORS

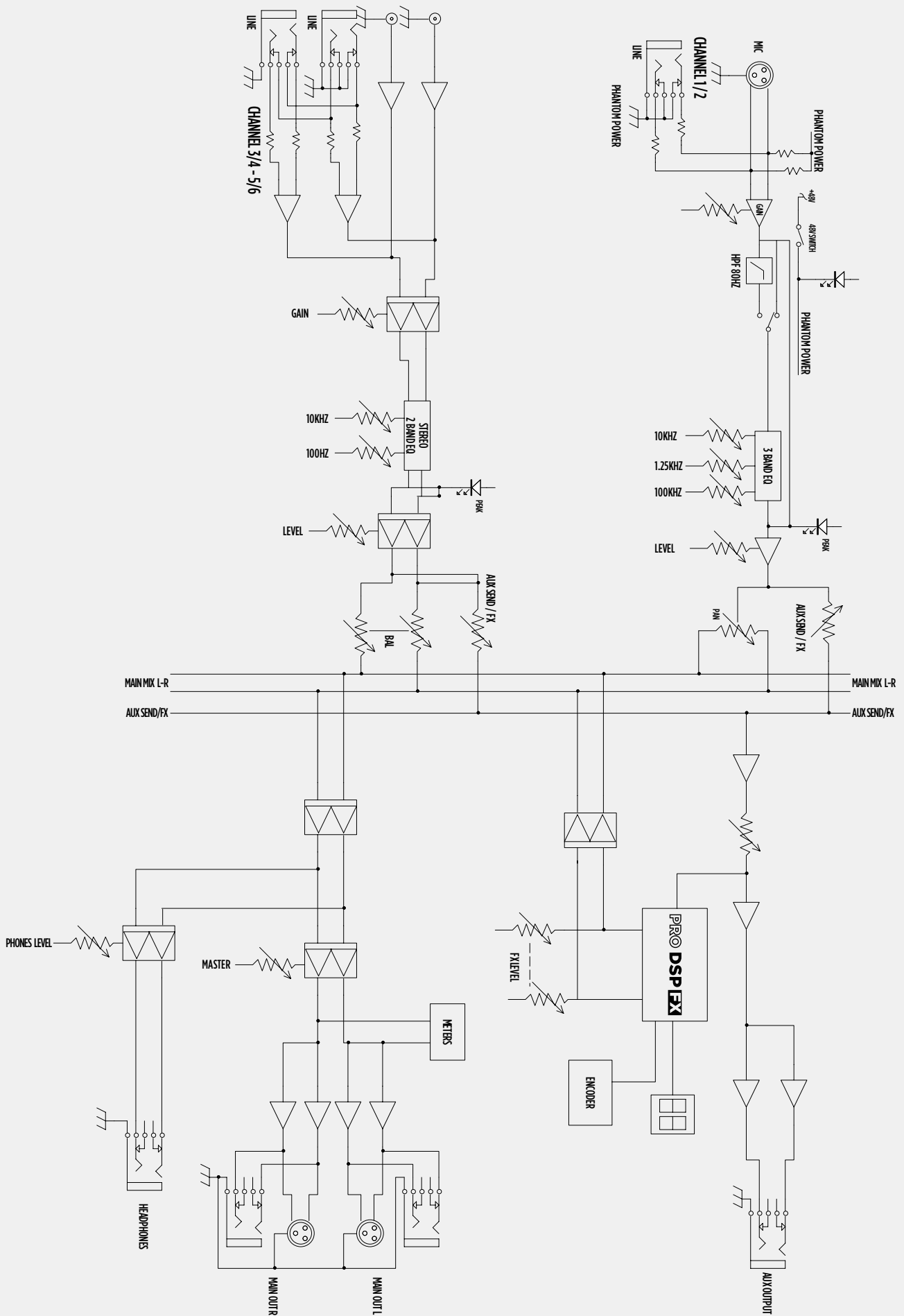
1/4" JACK CONNECTOR



SUGGESTED CONFIGURATION



F 6X BLOCK DIAGRAM / SCHEMA A BLOCCHI



SPECIFICATIONS / SPECIFICHE

SPECIFICATIONS RCF F 6X

Mono input Channels

Microphone inputs	2 XLR Balanced
Frequency response	20 Hz - 20 kHz, +/-1 dB
Distortion (THD+N)	<0,003% at +0 dB, 20 Hz-20 kHz
Sensitivity range	0 dB to -50 dB
Max input	+20 dBu
Mic input impedance	14 kΩ unbalanced
Phantom Power	+48 V
Low cut	80 Hz
Line input	2 TRS jack balanced
Frequency response	20 Hz - 20 kHz, +/- 1 dB
Distortion (THD+N)	<0,003% at +0 dB, 20 Hz-20 kHz
Sensitivity range	20 dB to -30 dB
Max input	+40 dBu
Line input impedance	21 kΩ unbalanced

Stereo Input Channels

Line input	2 pairs TRS jack balanced and RCA unbalanced
Frequency response	20 Hz - 20 kHz, +/- 1 dB
Distortion (THD+N)	<0,003% at +0 dB, 20 Hz-20 kHz
Sensitivity range	20 dB to -30 dB
Line input impedance	15 kΩ

Mono Channels EQ

High	+/-15 dB @ 10 kHz Shelving
Mid	+/-15 dB @ 1,250 kHz Bell
Low	+/-15 dB @ 100 Hz Shelving

Stereo Channels EQ

High	+/-15 dB @ 10 kHz Shelving
Low	+/-15 dB @ 100 Hz Shelving

DSP Section

DSP Processing	20/27 bit digital signal
A/D and D/A converters	24 bit
Type of effects	4 algorithms: reverb, chorus, delay, flanger - 16 presets
Footswitch	Yes (for effect return mute and unmute)

Outputs

Main Output	1 pair of XLR male and 1 pair of TRS jacks
Max Main Mix Output level	+28 dBu
Aux Output	1 TRS jack
Max Aux Output level	+28 dBu

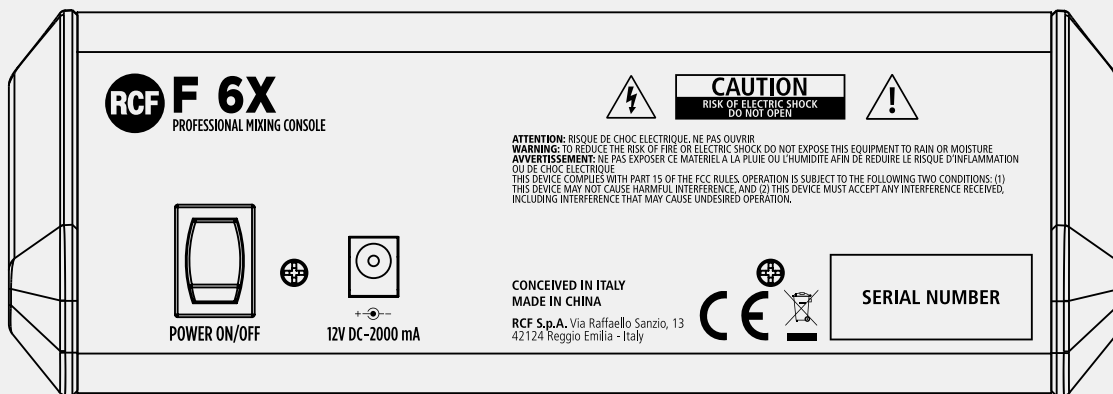
Power Supply

External Universal Power Adapter	AC/DC 12V - 2.000 mA
Main Voltage	100 V - 240 V AC, 50-60 Hz
Power Consumption	12 W

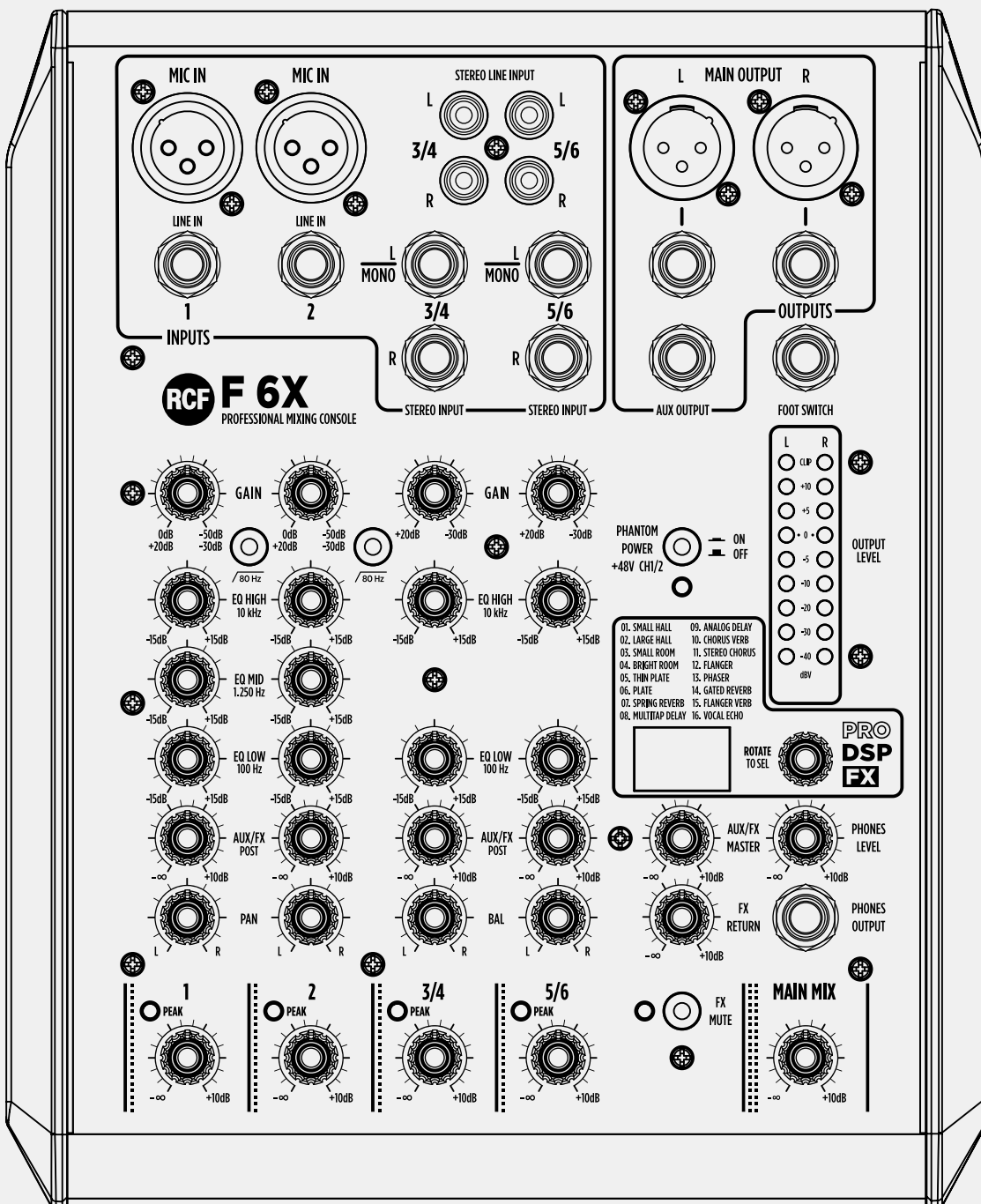
Weight 1.8 kg

Dimensions L 210 mm, W 252 mm, H 80 mm

F 6X REAR VIEW / VISTA POSTERIORE



F 6X TOP VIEW / VISTA FRONTALE





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