

## OPERATION

1. Connect loudspeaker system (MINIMUM load 2 ohms) with sufficient handling capacity to the output terminals of the amplifier.
2. Connect output from mixer ( or any other suitable signal source) to the appropriate input sockets of the power amplifier.  
NOTE. All inputs are BALANCED and connections for the XLR input are Pin 1 = GND, 2=HOT, 3= COLD
3. Connect the power cord to the mains.
4. Turn gain controls to minimum , switch on the amplifier and the Blue power LED will illuminate.
5. Adjust gain controls to required level. NOTE. If the audio input signal is too high, distortion will result and the CLIP indicator will light. If the clip LED is lit permanently or flashes, the gain level should be reduced.
6. Protect LED. These power amplifiers feature unique DC, thermal protection circuit.

For reliable and trouble free operation, please observe the following points:

- Ensure all input / output connections are correct and secure.
- The handling capacity of the loudspeakers is adequate for the output of the amplifier.
- Always install the amplifier in a well ventilated location.
- Protect unit from severe shocks.

## SPECIFICATIONS

Model	RAX 5020	RAX 7020
Stereo	2Ω (2 x 2800W RMS) 4Ω (2 x 1900W RMS) 8Ω (2 x 1200W RMS) 2Ω (2 x 3700W EIA) 4Ω (2 x 2500W EIA) 8Ω (2 x 1400W EIA)	2Ω (2 x 3500W RMS) 4Ω (2 x 2400W RMS) 8Ω (2 x 1400W RMS) 2Ω (2 x 4500W EIA) 4Ω (2 x 3100W EIA) 8Ω (2 x 1800W EIA)
Bridged	4Ω (5600W RMS) 8Ω (3800W RMS) 4Ω (7600W EIA) 8Ω (5000W EIA)	4Ω (7000W RMS) 8Ω (4800W RMS) 4Ω (9000W EIA) 8Ω (6200W EIA)
Single channel driven	2Ω (3000W RMS) 4Ω (2100W RMS) 8Ω (1280W RMS) 2Ω (3800W EIA) 4Ω (2800W EIA) 8Ω (1600W EIA)	2Ω (3600W RMS) 4Ω (2500W RMS) 8Ω (1500W RMS) 2Ω (4700W EIA) 4Ω (3250W EIA) 8Ω (1950W EIA)
Indicators	Power, Signal, Clip, Bass boost & Protect	
Damping factor	>350:1 (8Ω)	
Frequency Response	20Hz-20KHz (-3dB)	
Input Impedance	20KΩ Balanced/10KΩ Unbalanced	
Protection	Temperature, DC short circuit, Soft-Start	
Input Connector (per channel)	XLR, Jack Stereo 6.3mm	
Output Connector (per channel)	Speak-on connector/ Binding Posts	
Cooling	2 x Variable Speed fans (120MM)	
Power Supply	240V 50Hz,25A, 6050W	240V 50Hz,30A, 6550W
Dimensions (WxDxH)	482 x 133 x 527mm (3U)	
Net Weight in Kg*	32.0 kg	34.0 kg

\*Disclaimer: Above weight may vary within +/-0.5Kg.

Do not make any changes to the unit. This would also void your warranty.

The warranty is not applicable in case of accidents or damages caused by inappropriate use or disrespect of the warnings contained in this manual. Studiomaster Professional can not be held responsible for personal injuries caused by a disrespect of the safety recommendations and warnings. This is also applicable to all damages in whatever form.

\* Design and specification are subject to change without notice

Studiomaster<sup>®</sup> is a registered trademark of Audioplus in India. © Copyright Audioplus, 2008. All rights reserved. Any unauthorised reproduction or use of logos, images or design elements is strictly prohibited by law. No part of the compilation may be reproduced in any manner or translated without written permission.

Brought to you by: **AUDIOPLUS**  
A1/A2, Giriraj Industrial Estate, Mahakali Caves Road, Andheri (East), Mumbai - 400 093 India.  
Tel.: +91-22-42869000 / 001 / Fax: +91-22-26871453 Whats App.: +91-8879028079  
E info@audioplus-india.com W www.studiomasterprofessional.com / www.audioplus-india.com

# Studiomaster<sup>®</sup>

PROFESSIONAL

## Stereo Power Amplifier

Models: RAX-5020, RAX-7020



A series of high output, high quality stereo power amplifiers offering greater reliability for a wide range of Clubs, Stage and P.A. applications.

### Features . . .

- Rugged & Reliable Stereo Power Amplifier.
- Stable 2ohm operation.
- Output: Speakon, 6.3mm jack socket & Binding Post Connectors.
- EQ Processing, Low Cut, Subwoofer on rear Panel.
- Input: Balanced XLR & 1/4" Jack.
- Stereo, Bridge & Mono Mode Selection Switch.
- Protection: Temperature DC, Short Circuit.
- Temperature controlled Fans.
- Mains voltage operation 220VAC-240VAC as well as Low Voltage Operation (150VAC).
- 19" 3U Rack Mountable design.
- Level Control & LED indicators (Power, Signal, Clip, Bass Boost & Protect) on front panel.

Rev000/SM RAX SERIES/JUNE 2019

# Instruction Manual

# INSTRUCTION MANUAL - STEREO POWER AMPLIFIERS



**WARNING :** THIS UNIT MUST BE EARTHED.  
KEEP WELL VENTILATED.

## INTRODUCTION

Thank you for purchasing the Studiomaster Professional RAX series amplifier. These RAX series amplifier incorporate Studiomaster Professional renowned technological expertise, and offers high reliability, rock-solid stability, and superb acoustic characteristics.

## INSTALLATION

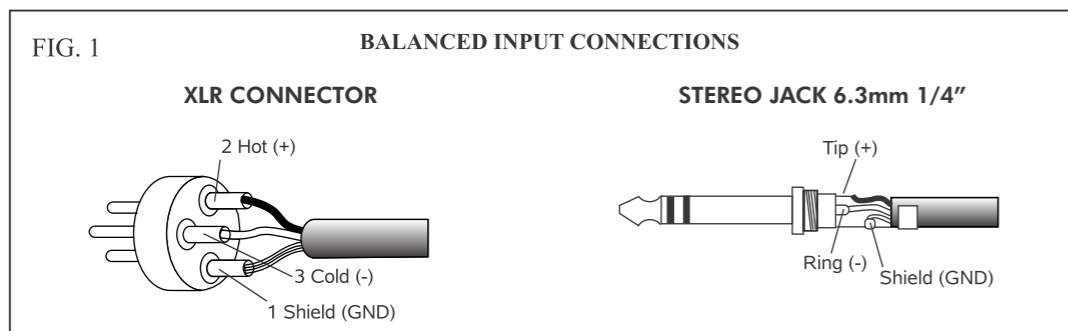
- Connect this unit's power cord only to an AC outlet of the type stated in this Instruction Manual or as marked on the unit. Failure to do so is a fire and electrical shock hazard.
- Do not allow water to enter this unit or allow the unit to become wet this may result in Fire or electrical shock.
- Do not place a container with liquid or small metal objects on top of this unit. Liquid or metal objects inside this unit are a fire and electrical shock hazard.
- Do not place heavy objects, including this unit, on top of the power cord. A damaged power cord is a fire and electrical shock hazard.
- Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock.

## OPERATION

- Do not scratch, bend, twist, pull, or heat the power cord. A damaged power cord is a fire and electrical shock hazard.
- Do not remove the unit's cover. You could receive an electrical shock. If you think internal inspection, maintenance, or repair is necessary, please contact your dealer.
- Do not modify the unit. Doing so is a fire and electrical shock hazard.
- If lightning begins to occur, turn off the power switch of the unit as soon as possible, and unplug the power cable plug from the electricity outlet.
- If there is a possibility of lightning, do not touch the power cable plug if it is still connected. Doing so may be an electrical shock hazard.

## For correct operation

**Connector pin assignments** • XLR-type connectors are wired as follows Pin 1: ground; Pin 2: hot (+); in 3: cold (-)



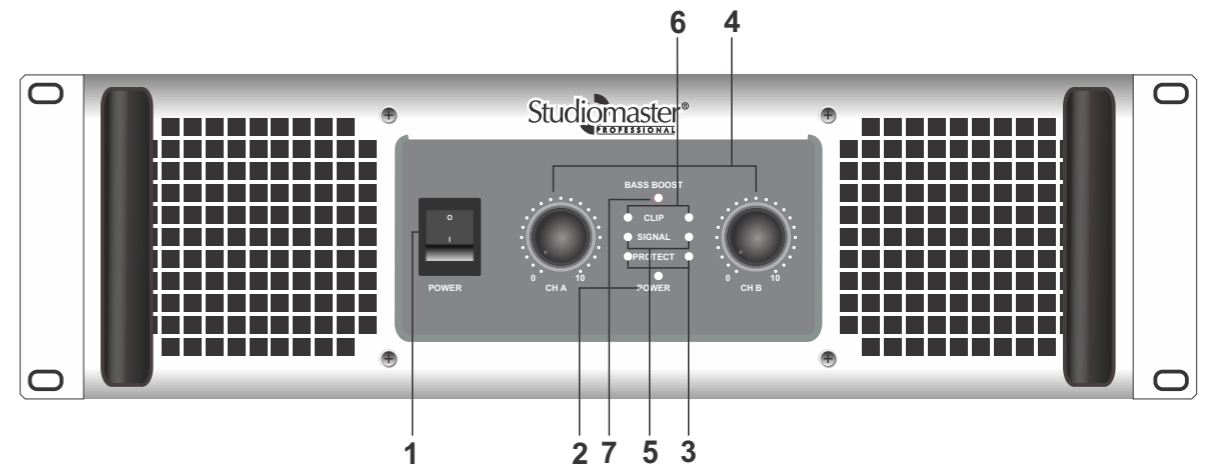
Always turn the power off when the amplifier is not in use.

Illustrations in this manual are for explanatory purposes only, and may not match the actual appearance of the product during operation.

## FEATURES

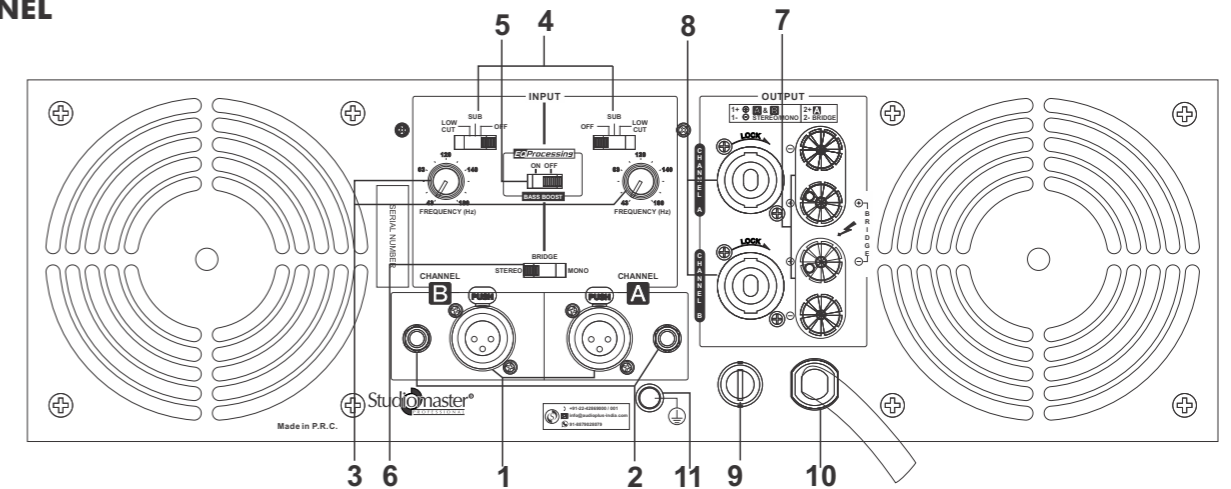
- With two types of input jacks (balanced XLR & 1/4" Jack) and 2 types of output jacks, (Speakon, binding post). These amplifiers are suitable for a wide variety of applications and installed systems.
- The unit offers three operating modes: STEREO (where Channels A & B operate independently), MONO (where the unit outputs a mono source through twin amplifier systems), and BRIDGE (where the unit operates as a single high-power amplifier)
- Each channel is equipped with an independent LOW CUT/SUB WOOFER switch-where LOW CUT engages a high-pass filter, and SUB WOOFER engages a low-pass filter. With LOW CUT or SUB WOOFER selected, you can adjust the cutoff frequency from 43Hz to 180Hz.
- Each channel has a common bass boost switch, when turned ON, the amplifier adds low-frequency compensation so that the speaker output is enhanced.
- Each channel has its own SIGNAL and CLIP indicators.
- The PROTECTION indicator lights up-and sound output is automatically muted-whenver the unit's protective circuitry is operating i.e. thermal and DC protection.
- Variable-speed low-noise fans ensure the amplifiers run cool.

## FRONT PANEL



1. Power ON/OFF switch
2. Power on/off LED indicator
3. Protect indicators for CH A & CH B
4. CH A & CH B gain control
5. Signal LED indicators for CH A & CH B
6. Clip LED indicators for CH A & CH B
7. Bass boost indication

## REAR PANEL



1. Balanced XLR input - This XLR connector takes the signal (balanced/unbalanced) for driving the channel. If the signal is unbalanced, pin 2 can be used for the signal and pin 3 connected to the earth.
2. Balanced 6.3 mm jack input - This stereo jack connector takes the signal (balanced/unbalanced) for driving the channel. If the signal is unbalanced, a mono connector may be used.
3. Frequency adjustment knob - When the EQ is selected between Low Cut & Sub woofer, use this knob to adjust the frequency.
4. Filter Switch - Use this switch to select the filter type. SUB WOOFER.....Use a low-pass filter. The amplifier outputs the frequencies that are lower than the cut-off set by the FREQUENCY adjustment knob. LOW CUT.....Use a high-pass filter. You can use this setting to filter out unneeded low or subsonic frequencies.
5. Bass Boost Switch - If you set this switch ON, the amplifier adds low-frequency compensation so as to enhance speaker output. The results (the actual change in the low-frequency balance) will vary according to the speaker type. Note that this switch is effective only if the FILTER switch is set to OFF.
6. Configuration Switch - This 3 way switch configure the amp for the three working modes Mono, Stereo and Bridge.
7. Output Binding Post - Use this output for picking up the amplified signals individually for stereo mode & in combination for bridge mode.
8. Speakon connector for CH A to CH B - Use this connector to pick amplified output of CH A & CH B.
9. Fuse holder socket. Replace fuse with same type & rating.
10. Power cable - Use this cable for supplying power to unit.
11. External earth terminal: For a possible ground connection (e.g. in case of hum problems).