

**Public Address Amp
COM12/COM24**

AUDAC

PROFESSIONAL AUDIO EQUIPMENT

Public Address Amplifier COM12/COM24

User Manual & Installation Guide

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© AUDAC
<http://www.audac.be>
info@audac.be

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Introduction

This section briefly describes the possibilities of the COM12/COM24 public address amplifier.

The COM12/COM24 public address amplifier was developed as an easy to use, flexible solution for multifunctional use.

During the development of the COM12/COM24, the AUDAC-engineers wanted to achieve four goals:

- Delivering a flexible audio solution to control multiple functions
- Easy to use
- Excellent sound quality
- Modern and advanced design

The COM12/COM24 has 2 stereo unbalanced line level inputs, 2 mono balanced line level inputs, 2 mono balanced line level inputs with priority settings and phantom power, 5 high impedance 100V mono output zones, 1 low impedance 4ohm mono output zone, a link input and output, an amp input and pre-amp output, a remote microphone input and the possibility to connect a telephone pager unit.

The COM12/COM24 can be used in commercial applications such as restaurants, hotels, shops, warehouses, professional offices, public buildings, ...

A simple example: when installed in a shop, you could connect: a tuner to play your favorite radio-station, a microphone to make announcements, a telephone pager, ... and off course the doorbell of the shop.

Environment

Do not place this unit in an enclosed environment such as a bookshelf or closet. Ensure that there is adequate ventilation to cool the unit. Do not block the ventilation openings.

Do not place the unit in environments which contain high levels of dust, heat, moisture or vibration.

Do not use the unit near water or other liquids. Make sure no water or other liquids can be spilled, dripped or splashed on the unit.

This unit is developed for indoor use only. Do not use it outdoors.

Do not place objects on top of the unit.

Place the unit on a stable base.

Safety Requirements

Always handle the unit with care.

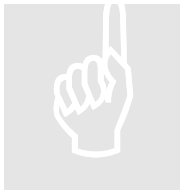
Only use a grounded socket outlet and a power cord with grounding plug to plug in the unit.

This unit is not a toy. It should not be operated by children.

Do not stick objects through the openings of the COM12/COM24.

Do not open the unit (risk for electrical shock).

The COM12/COM24 contains several < jumpers > which can be set. These settings may only be done by qualified people.



CAUTION – SERVICING

This unit contains no user serviceable parts. Refer all servicing to qualified service personnel. Do not perform any servicing unless you are qualified to do so.

Note

This product conforms to the following European Standards: EN 50081-1: 1992, EN 50082-1: 1992, EN 60065: 1994

Pin connections on Connectors

Cinch (RCA):

tip = signal (left or right)

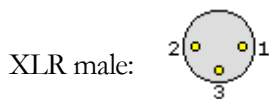
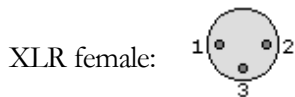
ring = ground

XLR:

1 = ground / shield

2 = +sig

3 = -sig



6.3mm (1/4") balanced jack plug:

tip = +sig

ring = -sig

sleeve = ground / shield

6.3mm (1/4") unbalanced jack plug:

tip = signal

sleeve = ground / shield

Chapter

2

Overview front and rear panel of the COM12/COM24 (same for the COM24)

FRONT

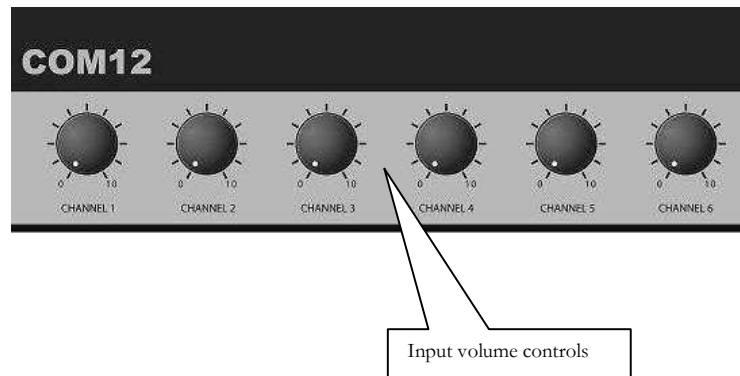


REAR



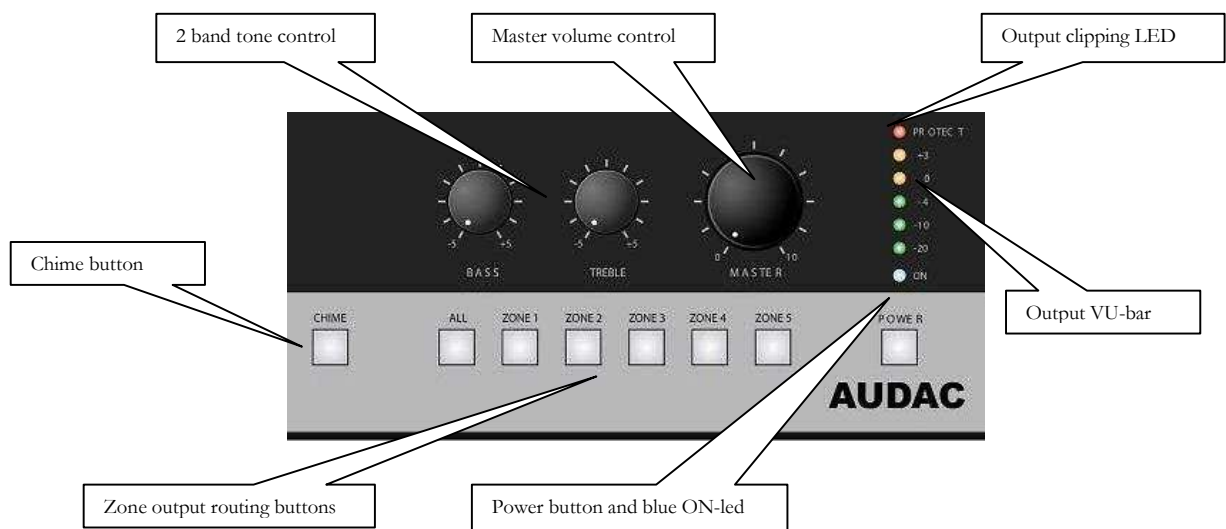
Overview Input Controls (same for the COM24)

INPUT 1 - 6 (FRONT)



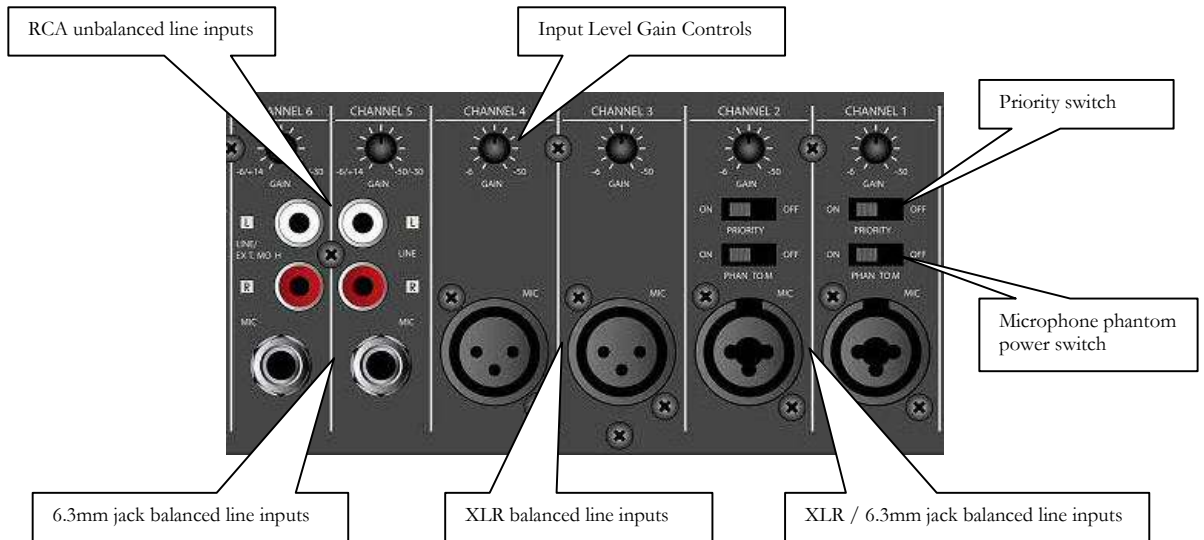
Overview Output Controls (same for the COM24)

OUTPUT 1-5 (FRONT)

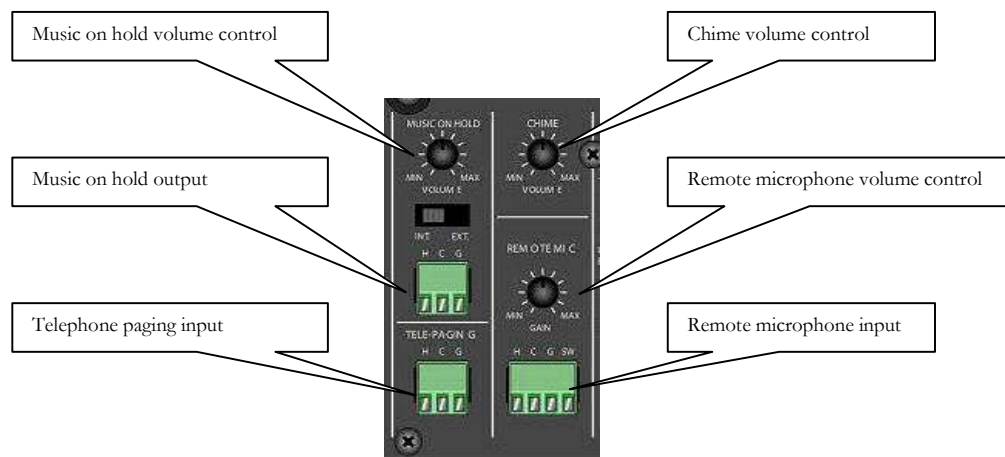


Overview Input section line inputs (same for the COM24)

INPUT 1-6 (REAR)

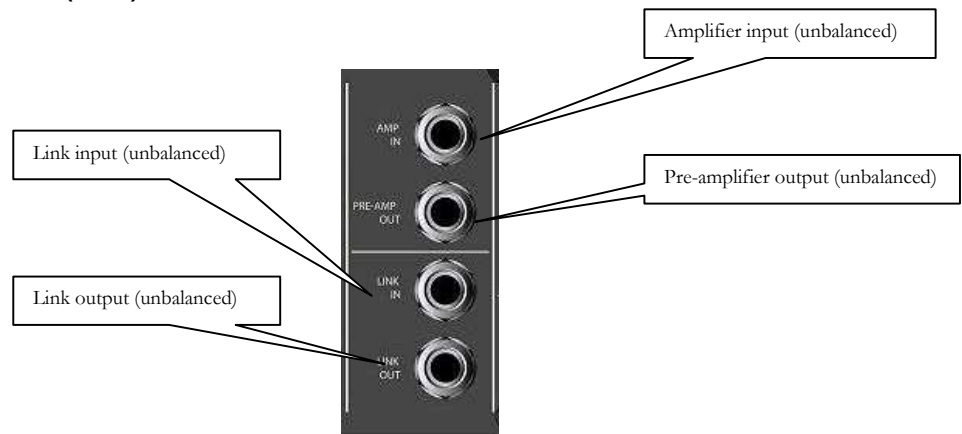


Overview input section tele-paging and remote mic (same for the COM24)

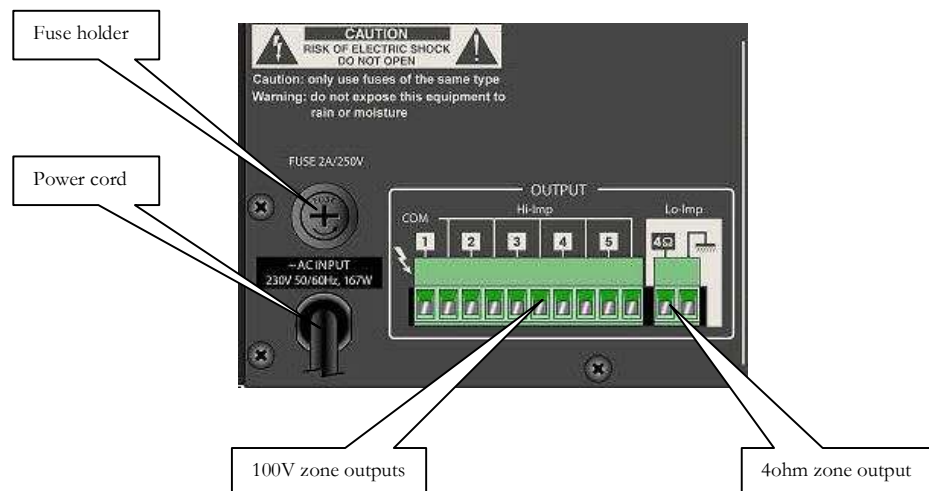


Overview Cascading Ports (same for the COM24)

CASCADING PORTS (REAR)



Overview output section (same for the COM24)



Getting Started

The COM12/COM24 public address amplifier can be switched on by pressing the power button on the front panel. The blue < ON > led will light up if the device is powered-up.

On the front panel you can route the input signals to a specific zone output simply by pressing the routing button of the zone output. If you want to route the input signals to all zone outputs, press the < All > button. By pressing the routing buttons a second time, the routing will be undone. A pre-announced chime can be played by pressing the < Chime > button on the front panel.

The volume of the input signals can be controlled by turning the volume knobs of the input signals on the front panel of the COM12/COM24. The master volume knob and the 2 band tone control let you adjust the volume, bass and treble of the output signal. A VU-bar indicates the signal level of the output signal.

On the rear panel, the gain of the input channels and the remote microphone can be adjusted. The volume of the < chime > and the < music on hold > function can also be adjusted on the rear panel.

The output section on the rear panel of the COM12/COM24 has 5 high impedance zone outputs for 100V lines and 1 low impedance zone output to connect a 4ohm speaker (or two 8 ohm speakers in parallel).

Priority settings

The COM12/COM24 public address amplifier has a 3 layer priority mute function. The first layer has the highest priority, the third layer has the lowest priority.

Layer 1	Telephone paging
Layer 2	CH1, CH2, Chime, Remote Mic.
Layer 3	CH3, CH4, CH5, CH6

When a source of a higher layer becomes active, **all** other input signals on the layers **below** are muted.

The priority for CH1 and CH2 can be switched < on > or < off > on the rear panel.

Phantom power

When connecting a condenser microphone to CH1 or CH2, the phantom power for the microphone on the specific channel can be switched on at the rear panel. The phantom power supplies +15V_{DC} to the microphone.

Telephone paging

Connect the tele-paging connector with the tele-paging output of your telephone paging unit. Connect the < music on hold > connector to the < music on hold > input of the telephone paging unit.

The music for the < music on hold > function is provided **only** by the music source connected to CH6.

Set the < music on hold > volume to a proper level.

Connecting external equipment

If it is necessary to condition the output signal or to limit the output signal, an equalizer or limiter can be connected between the mixer section and the amplifier section of the COM12/COM24.

This can be done by connecting the < pre-amp output > to the equalizer or limiter input and connecting the equalizer or limiter output to the < amp input >. When you insert a 6.3mm plug into the < amp input >, the internal amplifier section will be disconnected from the internal mixer section.

Cascading COM12/COM24 public address amplifiers

When there's need for more in- and outputs, the COM12/COM24 amplifiers can be cascaded by connecting the < link output > from the master to the < link input > of the slave.

Connecting the speakers

Speakers with a matching transformer can be connected to the 5 high impedance outputs on the rear panel.

A 4ohm speaker (or two 8ohm speakers in parallel) can be connected to the 4ohm low impedance output at the rear

ATTENTION: NEVER use the high impedance outputs and the low impedance outputs at the same time.

Make sure the total combined load of the speakers does not exceed 120W (COM12)/240W (COM24). This is the maximum power the COM12/COM24 amplifier can give.

Wire up the System

The COM12/COM24 amplifier is very easy to use. Following cable specs must be followed to guarantee a correct operation:

1. Speaker cable for amplified zone output 4ohm: minimum 2x1.5 mm² (distance >15m: 2x2.5mm²)
2. Music sources and other line level inputs: must be connected with audio cable of good quality

Additional Information COM12/COM24

Technical specifications

	COM12	COM24
Sensitivity		
Balanced Microphone Channels	-50dB±3dB	
Balanced Line Channels	-22dB±3dB	
Balanced Remote Microphone station	-50dB±3dB	
Balanced Telephone Paging	-21dB±3dB	
Unbalanced Link In	-17dB±3dB	
Unbalanced Amp In	-0dB±3dB	
Frequency Response (1Watt from speaker output tap. 100Hz-10kHz)	+1.5dB / -3dB	
THD+N by 1 kHz	Less than 0.5%	
Signal to Noise ratio	90 dB@1kHz	
Phantom Power	+15V DC	
Zone outputs 1-5	100V	
Output level & impedance	100V – 83 ohm 70V – 42 ohm 25V – 5,2 ohm 4 ohm – 22V	100V – 42 ohm 70V – 21 ohm 25V – 2,6 ohm 4 ohm – 31V
Power Supply	235V AC, 50-60Hz	
Max. power consumption	170W	260W
Weight	9.76 kg	8,5 kg
Dimensions (W x H x D)	420 mm x 88mm x 320mm	
Unit height	2HE	

Personal notes