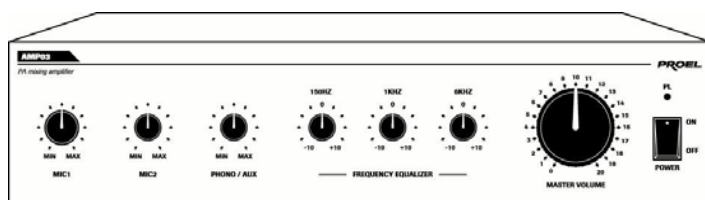


# INSTRUCTION MANUAL

## PA Mixing Amplifier AMP03



# PROEL

UK

## 1. IMPORTANT SAFETY INSTRUCTIONS



**CAUTION:** To reduce the risk of electric shock do not remove cover (or back panel). No user serviceable parts inside. Refer servicing to qualified personnel only.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.



This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user of the presence of important operating and maintenance (servicing) instruction in the literature accompanying the appliance. Please carefully read the owner's manual.

### INSTRUCTIONS:

All safety and operating instructions should be read before the product is operated.

#### **Retain these instructions:**

All safety and operating instructions should be retained for future reference. This owner's manual should be considered as a part of the product and it must accompany it every time, and delivered to the new user when this product is sold. In this way the new owner will be aware of all the installations, operating and safety instructions.

#### **Heed all warnings:**

All warnings on the product and in owner's manual should be adhered to. Heed all warnings.

#### **Follow all instructions:**

All operating and user's instructions must be followed.

Sentences preceded by  symbol contain important safety instruction. Please read it carefully.

#### **DETAILED SAFETY INSTRUCTIONS.**

##### **Water and moisture:**

This apparatus should not be used near water (i.e. bathtub, kitchen sink, swimming pools, etc.)

##### **Ventilation:**

This apparatus should be placed in a position that doesn't interfere with correct ventilation. This unit, for example, should not be placed on a bed, sofa cover or similar surfaces that could cover ventilation openings, or placed in a built-in installation, such a bookcase or a cabinet that could block air flow through ventilation openings.

##### **Heat:**

This apparatus should be placed away from heat sources, like radiators, heat registers, stoves or other products (including amplifiers) that produce heat.

##### **Power sources:**

- This apparatus should be connected only to power source type specified in this owner's manual or on the unit.
- If the supplied AC power cable plug is different from wall socket, please contact an electrician to change the AC power plug.

##### **Grounding or Polarization:**

- All precautions must be observed in order to avoid grounding or polarization defeating.
- Unit metal parts are grounded through the AC power cord.
- If the AC power outlet doesn't have grounding, consult an electrician for outlet grounding.

##### **Power cord protection:**

The power cord should be routed in a way it will not be walked on or pinched by items placed upon or against it, paying particular attention to cords at plugs, convenience receptacles and wall outlet.

##### **Cleaning:**

- You can clean the unit with a compressed air flow or a wet cloth.
- Don't clean the unit using solvents like trichloroethylene, thinners, alcohol, or other fluids with very strong volatility and flammability.

##### **Non use periods:**

The unit AC power cord should be unplugged from the outlet if it's unused for a long period.

**Objects or liquid entry inside the unit:**

Be careful that no objects fall or liquid is spilled inside the unit through ventilation openings.

**Safe power line use:**

- Keep firmly the plug and the wall outlet while disconnecting the unit from AC power.
- When the unit will not be used for a long period of time, please unplug the power cord from AC power outlet.
- To avoid unit power cord damaging, please don't strain the AC power cable and don't bundle it.
- To avoid unit power cord damaging, please be sure that the power cord is not walked on or pinched by heavy objects.

**Unit relocation:**

Before any unit relocation please control the unit is turned off. Power cord must be unplugged by the wall outlet, and all the connections wires should be disconnected as well.

**Don't open this unit:**

Don't attempt to open or to repair by yourself this unit. For any problem solution not described in this owner's manual, please refer to qualified personnel only or consult us or your National Distributor. Any improper operation could result in fire or electric shock.

**Damages requiring services:**

- Don't attempt to do operations not described in this user's manual.
- In the following cases please refer to an authorized maintenance center or skilled personnel:
  - When the unit works improperly or it doesn't work at all.
  - If power cord or plug are damaged.
  - If liquid has spilled, or objects have fallen into the unit.
  - The unit has been exposed to rain.
  - The unit doesn't operate normally or it exhibits a marked change in performance.
  - If the product has dropped or it has been damaged in any way.



**Maintenance:**

The user shouldn't attempt maintenance operation not described in this user's manual. Every maintenance operation should be done by qualified personnel only.

**IMPORTANT SAFETY INSTRUCTIONS:**

- Install this unit following owner's manual instructions.
- Don't install, connect or disconnect power supply when the unit is powered, otherwise there's an high risk of electric shock.
- Don't open the unit, there are no user serviceable parts inside.
- If you detect a particular smell from the unit, please immediately turn it off and disconnect the AC power cord.
- Don't block the unit ventilation openings.
- Avoid to use this unit in overload for a long period.
- Don't force commands (switches, controls, etc.)

**UK**

- To obtain good speakers wire contacts, please tighten the screw terminals firmly.
-  For safety reason, don't defeat the grounding connection. Grounding is useful for user safety.
- Use only connectors and accessories suggested by the manufacturer. .
- This unit should be placed in a rack (see INSTALLATION) and kept far from:
  - Wet places
  - Direct exposure to heat sources (like sun light)
  - Non properly ventilated places
- Disconnect the power cord during storms or when the unit is not used.
  
-  In order to prevent fire and electric shock risks, it's necessary to keep the unit far from sprinkling and drops. Please don't put cups, vases or other object containing liquids over the unit. In case of interferences from source signal, THD value will raise over 10%. Don't place this unit in a bookshelf or in other places with small room.
- PROEL S.P.A. is not responsible for any damage that occurs due to a wrong unit installation.

Thank you for choosing one of Proel products, and for your confidence towards our brand, synonymous of professionalism, accuracy, high quality and reliability. All our products are CE approved and designed for continuous use in professional installation systems.

## 1. DESCRIPTION

This unit is designed for speech, music, paging and sound reinforcement applications.

### FEATURES

- Two MIC inputs.
- One PHONO input and one AUX input switch selectable.
- LED power indicator.
- Master output level.
- PHONO and AUX level controls.
- MIC1 level control.
- MIC2 level control.
- Bass, Middle and Treble tone controls.
- Grounding terminal.
- Four outputs – three constant impedance outputs (4 $\Omega$ , 8 $\Omega$ , and 16 $\Omega$ ) – one constant voltage output (100 V).
- Priority function.



## 2. FRONT PANEL DESCRIPTION

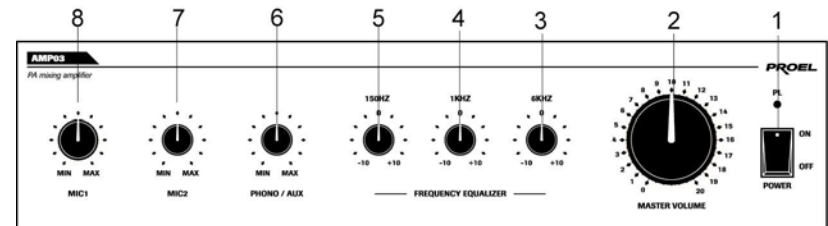


fig.1

- 1) Power On/Off switch.
- 2) MASTER output volume control.
- 3) High frequency tone control (6 KHz).
- 4) Middle frequency tone control (1 KHz).
- 5) Low frequency tone control (150 Hz).
- 6) PHONO/AUX volume control.
- 7) MIC2 volume control.
- 8) MIC1 volume control.

## 4. REAR PANEL DESCRIPTION

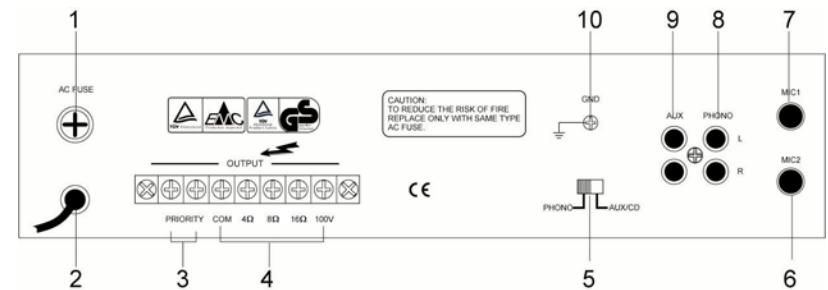


fig.2

- 1) Fuse-holder.
- 2) AC power cord (220 V AC).
- 3) Priority function terminals.
- 4) Speakers output terminals (4Ω, 8Ω, 16Ω, 100 V).
- 5) AUX or PHONO switch.
- 6) MIC2 1/4" jack input.
- 7) MIC1 1/4" jack input.

- 8) PHONO input (RCA connectors).
- 9) AUX/CD input (RCA connectors).
- 10) Grounding terminal.

## 5. INSTALLATION

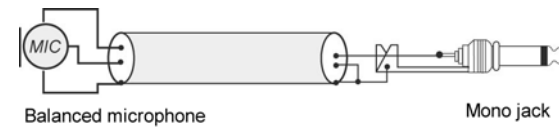
### 1. Input connections

- MICROPHONE CONNECTION:

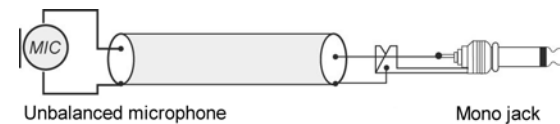
Please always use a shielded cable to connect every kind of microphone. To obtain a good sound quality, we suggest to use microphones cables up to 10-20 meters (32-64 feet). This value is strictly correlated to microphones specifications.

Microphones inputs are unbalanced. We suggest to use unbalanced low impedance microphones ( $30 - 600\Omega$ ).

Unbalanced wiring of a balanced low impedance microphone:



Unbalanced low impedance microphone wiring:





- AUX /PHONE

CD players, cassette decks, tuners, mixers and other external line level output equipment may be connected to AUX input.



The selector switch allows to choose input signal AUX and PHONO.

**Note:** AUX and PHONO cannot be used simultaneously.

## 2. Output connections

### ⚠ Attention

To prevent the risk of electric shock, never touch amplifier outputs when the amplifier is turned on.

To access to speaker connection terminals (**fig. 2 ref. 4**) remove the protection cover unscrewing the screws.

This amplifier may be used both with constant impedance speakers (4, 8, and 16  $\Omega$ ) and with constant voltage speakers (100V).

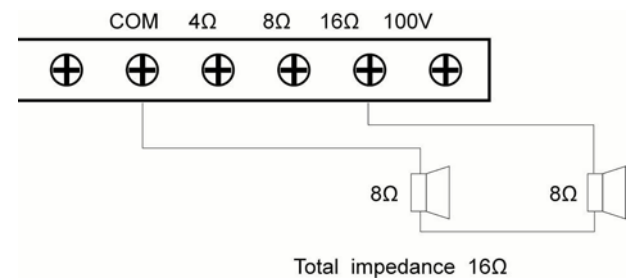
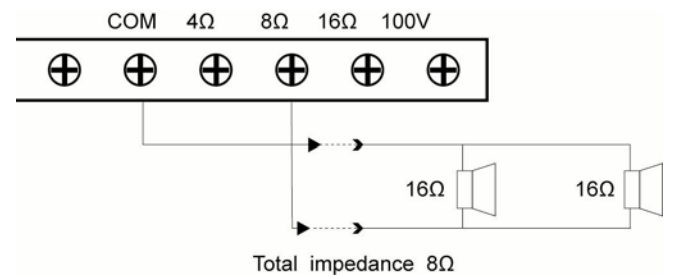
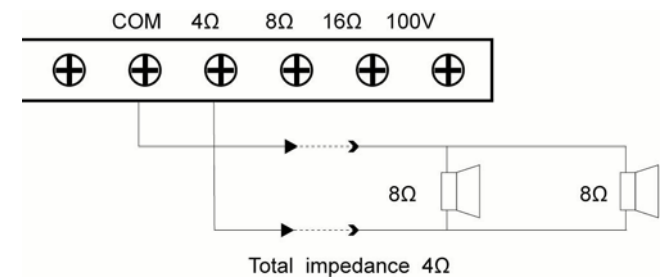
### CONSTANT IMPEDANCE LINE.

To use this amplifier with a constant impedance line, please connect the COM terminal to the negative post of your speaker, and connect the positive terminal to desired positive post (4, 8, 16 $\Omega$ ) (**fig. 2 ref. 4**).

- To obtain the best performances, the total speakers impedance connected to the line, should be equal to the amplifier output impedance.



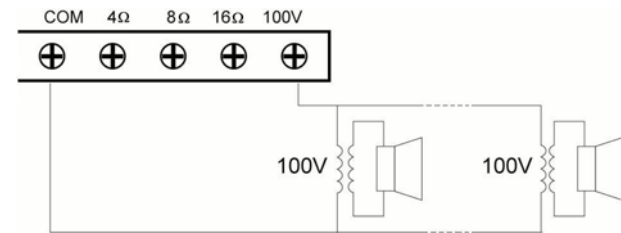
- Speakers power sum should not be lower than the amplifier output power.
- We suggest you to don't use long cables. Anyhow, for longer distances application use a thicker cable.



**CONSTANT VOLTAGE LINE.**

If you're using a constant voltage line, connect either the 100V to the "+" side of speaker system, and connect COM to "-" side of the speaker (fig. 2 ref. 4).

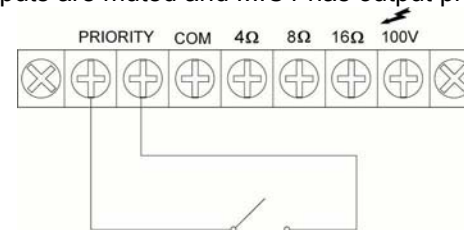
- Speakers should have a transformer of the same voltage developed by the amplifier.
- Speakers power sum should not be higher than the amplifier maximum output power.



Constant voltage 100V

**3. Priority Function**

When PRIORITY (fig.2 rif.3) terminals are in short-circuit, MIC2, AUX and PHONO inputs are muted and MIC1 has output priority.



## 6. OPERATIONS:

- a. Pressing the POWER switch the unit turns on, and its LED is lit. Pressing it again the unit turns off.
- b. BASS (150Hz) control modifies signal lower frequencies output (up to 10 dB of boost or cut). Set this control level by personal taste and ambient acoustic character.
- c. MIDDLE (1kHz) control modifies signal lower frequencies output (up to 10 dB of boost or cut). Set this control level by personal taste and ambient acoustic character.
- d. HIGH (6kHz) control modifies signal lower frequencies output (up to 10 dB of boost or cut). Set this control level by personal taste and ambient acoustic character.
- e. MIC 1, MIC 2 and AUX/PHONO inputs have their own independent volume control. These controls allows to set their level in order to listen to each program source at the desired level.
- f. Turning clockwise the MASTER volume control, the playback level will raise, turning it counter clockwise it will be lower.



## 7. Technical specifications

Model	<b>AMP03</b>
Output RMS / MAX power	30 W / 60 W
Constant voltage output	100V
Constant impedance outputs	4 $\Omega$ , 8 $\Omega$ , 16 $\Omega$
Inputs connectors	MIC1, MIC2: 30 - 600 $\Omega$ Unbalanced 1/4" jack AUX /PHONE: 10 K $\Omega$ RCA
Output connectors	4 $\Omega$ , 8 $\Omega$ , 16 $\Omega$ on terminal board 100V on terminal board
Frequency response	100Hz – 18KHz
Harmonic distortion	< 1%
Signal to noise ratio (@ 1 KHz)	> 55 dB
Inputs sensitivity	MIC1, MIC2: -55dB $\pm$ 2 dB AUX : -20dB $\pm$ 2 dB PHONE: -55dB $\pm$ 2 dB
AC power	220 V A.C.
Dimensions (W x H x D)	320 x 190 x 80 mm. – 12.6 x 7.4 x 3.2 in.
Weight	5Kg – 11 lbs.



The product is in compliance with Directive 89/336/EEC (Electromagnetic Compatibility) and following modifications 92/31/EEC and 93/68/EEC, as the following standards:  
**EN 50082-1:1997, EN 55013:1990, EN 55020:1994**

it is also in compliance with Directive 73/23/EEC (Low Voltage) and following modifications 93/68/EEC, as the following standard:  
**EN 60065:1998**

Proel SpA pursue a policy of continuous research and development. Proel SpA reserve the right to modify product circuitry and appearance at any moment, without prior notice.



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