



# ACM250P

## 250w Power Amplifier



# Operating Manual

# ACM250P, 250 Watt Power Amplifier

## Product Description

The ACM250P power amplifier is designed for commercial installations. It can be used for either low impedance (4 ohm) or 70v/100v line speaker systems. It operates on 230/240 VAC, 50Hz (or 115 VAC, 60Hz with factory modification) and may be desk or rack mounted. The ACM250P features a line level input (with parallel output) and is normally used with mixers, mixer amplifiers or other power amplifiers. The ACM250P delivers 250 watts into a load of 4 ohms, 70 or 100 volt line.



## Front Panel Features

### Power Switch

The black rocker switch on the right hand side of the front panel is used to switch the amplifier on and off. The 'up' position is on. When the amplifier is connected to an appropriate AC power source and is switched on, the blue power LED will illuminate.

### On LED

The blue "On" LED above the power switch will illuminate when the amplifier is connected to mains power and is switched on.

### Signal LED

The green "Signal" LED located next to the On LED indicates that the ACM250P is receiving audio signal via its line level input. The signal LED is a simple method to trouble-shoot installations especially in multi amplifier projects. At a glance the signal LED will indicate that audio is reaching the amplifier.

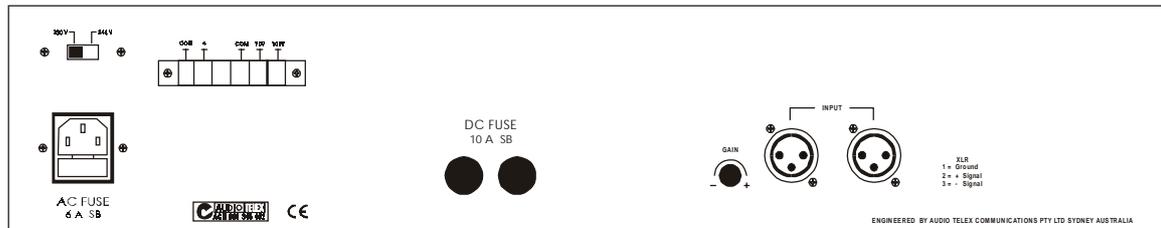
### Protect LED

A feature of the ACM250P is high temperature protection. In most applications, the internal cooling fan will most probably never switch on. When used with demanding speaker loads or in difficult operating environments, the fan may regularly switch on to cool the amp down and then switch off again. This switching on and switching off is quite normal. The "Protect" function is there to protect the amplifier from a high temperature problems which would only occur if the fan stopped working or became clogged up. In this very rare occurrence, the protect LED will illuminate and the amplifier may shut down. The amplifier will automatically restart once it's internal temperature has fallen within "safe" limits. If the protect LED illuminates, it is best to switch the amplifier off, let it cool down and then try it again. If the protect LED illuminates again, please contact the company who supplied or installed the equipment.

## Rack Mounting

The ACM250P is supplied with rack ears attached to allow mounting within a standard 19" equipment rack. As is the case with almost all audio products, adequate ventilation and air flow is required. When installing multiple ACM250P power amplifiers within the one rack, it is recommended that at least one rack unit of ventilation space is left between every two amplifiers.

For table or shelf mounting, the rack ears can be removed using a screwdriver. Once the rack ears are removed, please reinstall the screws.



## Rear Panel Features

### AC Power Inlet

The 3 pin IEC power inlet is located on the bottom left of the rear panel and accepts a standard mains power lead fitted with an IEC connector. Before plugging in a power lead, please check the rear panel of the amplifier to ensure that the voltage label shows the correct AC operating voltage for your part of the world.

The inlet is equipped with an in-built AC fuse holder fitted with a 6 Amp slow blow fuse plus a spare fuse. **Please ensure that the mains power cord is disconnected before attempting to check or replace this fuse.** Power consumption is 400 VA (max).

### Speaker Output Terminal Strip

Located on the top left of the rear panel is the speaker output terminal strip. Reading from left to right, the connections are:

- COM** Common or “-” for low impedance speaker loads (4 ohms).
- 4** The “+” for 4 ohm speaker loads (use with common)

- COM** Common or “-” for 70v or 100v speaker loads (maximum load of 40 ohms at 100v)
- 70** The “+” for 70v line speaker loads (use with common)
- 100** The “+” for 100v line speaker loads (use with common)

Please ensure that the correct “Common” is used. Low impedance and 70/100v loads can be used simultaneously but please pay careful attention to the overall speaker load. When used individually, the low impedance load should be 4 ohms or higher while the 100v line load should not fall below 40 ohms. When both outputs are used simultaneously, ensure that neither output is loaded to maximum.

### Level Control

Located to the left of the XLR input/output is a recessed screwdriver adjustable level control. The level control is an input attenuation control normally used to match the amplifier to a wide variety of input signals. In essence, the amplifier is designed to receive a 700mv input signal however the level control can be used to increase the level for lower signals or decrease the level for higher input signals. In normal use, the level control is used as a ‘set and forget’ master level control for the amplifier.

## **XLR Audio Input and Parallel Output**

The ACM250P includes both male and female 3 pin XLR connectors. While the female is normally used as the input to the amplifier, both XLR's are connected in parallel so either will work. When signal is connected to one XLR, the other XLR becomes a line level output allowing the input signal to be distributed (split) to other amplifiers. In some projects, the same input may be looped through to multiple amplifiers using this method. Up to 6 amplifiers can be looped together without any noticeable loss in level. A distribution amplifier should be used when more than 6 amplifiers need to be looped.

The XLR's are wired as follows: **Pin 1:** Shield. **Pin 2:** Hot, +, Positive. **Pin 3:** Cold, -, Negative

## **Fuse Sizes**

Mains 240 VAC - 6 Amperes Slow Blow

DC - 2 x 10 Amperes Slow Blow

# Important Safety Information

1. **Save the carton and packing material even if the equipment has arrived in good condition.** Should you ever need to ship the unit, use only the original factory packing.
  2. **Read all documentation before operating your equipment.** Retain all documentation for future reference.
  3. **Follow all instructions** printed on unit chassis for proper operation.
  4. **Do not spill water or other liquids into or on the unit,** or operate the unit while standing in liquid.
  5. **Make sure power outlets conform to the power requirements** listed on the back of the unit.
  6. **Do not use the unit if the electrical power cord is frayed or broken.** The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
  7. **Always operate the unit with the AC ground wire connected** to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
  8. **Mains voltage must be correct and the same as that printed on the rear of the unit.** Damage caused by connection to improper AC voltage is not covered by any warranty.
  9. **Have gain controls on amplifiers turned down during power-up** to prevent speaker damage if there are high signal levels at the inputs.
  10. **Power down & disconnect units from mains voltage before making connections.**
  11. **Never hold a power switch in the “ON” position if it won’t stay there itself!**
  12. **Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.**
  13. **Do not block fan intake or exhaust ports.** Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, weathersheet, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically “blown free” of foreign matter.
  14. **Do not remove the cover.** Removing the cover will expose you to potentially dangerous voltages. There are no user serviceable parts inside.
  15. **Do not drive the inputs with a signal level greater than that required to drive equipment to full output.**
  16. **Do not connect the inputs / outputs of amplifiers or consoles to any other voltage source,** such as a battery, mains source, or power supply, regardless of whether the amplifier or console is turned on or off.
  17. **Do not run the output of any amplifier channel back into another channel’s input. Do not parallel- or series-connect an amplifier output with any other amplifier output.**
- Audio Telex Communications Pty Ltd is not responsible for damage to loudspeakers for any reason.*
18. **Do not ground any red (“hot”) terminal. Never connect a “hot” (red) output to ground or to another “hot” (red) output!**
  19. **Non-use periods.** The power cord of equipment should be unplugged from the outlet when left unused for a long period of time.
  20. **Service Information** Equipment should be serviced by qualified service personnel when:
    - A. The power supply cord or the plug has been damaged.
    - B. Objects have fallen, or liquid has been spilled into the equipment
    - C. The equipment has been exposed to rain
    - D. The equipment does not appear to operate normally, or exhibits a marked change in performance
    - E. The equipment has been dropped, or the enclosure damaged.



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