



*Easy, Versatile, and Reliable  
Audio POWER*

**AMP 850 | AMP 1400 | AMP 1800**



## AMP SERIES POWER AMPLIFIERS

- 3 mode operation: Two-channel, parallel or bridged mono operating modes for flexible application
- 2 Ohm amplification
- Independent limiters for each channel reduce distortion
- Low-frequency filters (40 Hz) remove rumble and subsonic frequency. twin-tunnel and two temperature-sensitivity forced-air cooling system to maintain a low temperature
- Cooling : Variable Speed Fan forced Cooling
- Balanced XLR or balanced 1/4-inch TRS combination input connector for each channel and link ports
- Five-way output binding posts or speaker connectors enable secure operation
- Precise signal and clip led indicators to monitor performance, allow you to correct for overloading (clipping) condition
- Speakon® connector each channel
- High-current toroidal transformer for absolute reliability
- Independent DC and thermal overload protection on each channel automatically protects amplifier and speaker
- The AMP series can be mounted in any standard 19" rack



## AMP SERIES POWER AMPLIFIERS

### POWER AMPLIFIERS FOR MOBILE AND INSTALLED SOUND SYSTEMS

AMP power amplifiers have been designed to supply the user with a reliable, flexible and rugged tool. Packing a Tri-mode working possibilities (Stereo Mode, Bridged, Mono Mode) we can adjust the amplifier to several working environments. Low frequency noises, sometime difficult to eliminate, can be easily removed using the HPF filter available at each channel. On the

other side there are two limiters (one per channel) to attenuate the degree of distortion without the need to retune the gain at the mixer. Multiple input/output balanced connections enable a clean signal transmission. All comes down to provide you with a professional tool at the level of your expectations.



### PROTECTION

Every model in the A Series incorporates protection features. The HPA Series front panel Protection LED indicates the activity of the relay speaker connection circuitry in each channel. When the protection LED turn on, this circuitry is active, and all connected speakers are muted.

Initial power-up ; For approximately five seconds after initial power-up, the protection circuitry is activated and the speaker outputs are muted. If everything is operating normally, you will hear an audible click at the conclusion of this brief period, as the protection circuitry is deactivated and the A Series begins delivering signal to connected speakers. It is normal for the Protection LED to fade gradually after the amplifier is powered off.

Thermal Protection; abnormally high heat sink temperatures will engage the Protect circuitry for the overheating channel only. An output relay disconnects the speakers until normal temperature range is restored. During this time, the Protect LED will light. To guard against this problem, make sure the A Series receives adequate ventilation on all sides and that both the front and rear panels are unobstructed. If the power transformer gets too hot, its thermal switch will disconnect all of the secondary power and disconnect both channel outputs.

Short circuit; if output is shorted due to faulty wiring, the thermal circuitry will automatically protect the amplifier. If this will occur, the load will be disconnected by thermal protection circuitry (also output relay opens). DC Voltage Protection ; If an amplifier channel detects DC voltage at speaker output, the output relay immediately open to prevent speaker damage.

Subsonic Frequency Protection; Built-in High Pass Filter provides subsonic frequency protection for each channel.

Current limiting Protection; At the amplifier's full power limit, or clipping point, the limiter circuitry will be activated. This is indicated by illumination of the Clip LED. The channel gain is automatically reduced, protecting the speakers from the high power. This circuitry is virtually transparent in operation and full signal bandwidth is maintained. Any time the Protection LED lights up (except for initial power-up during approximately five seconds), there is reason to be concerned. If this occurs, turn the amplifier off immediately and check carefully all wiring and external equipments in order to locate and correct the Condition.



**Active** These blue LED indicate that AC power is connected and the amplifier is turned on.

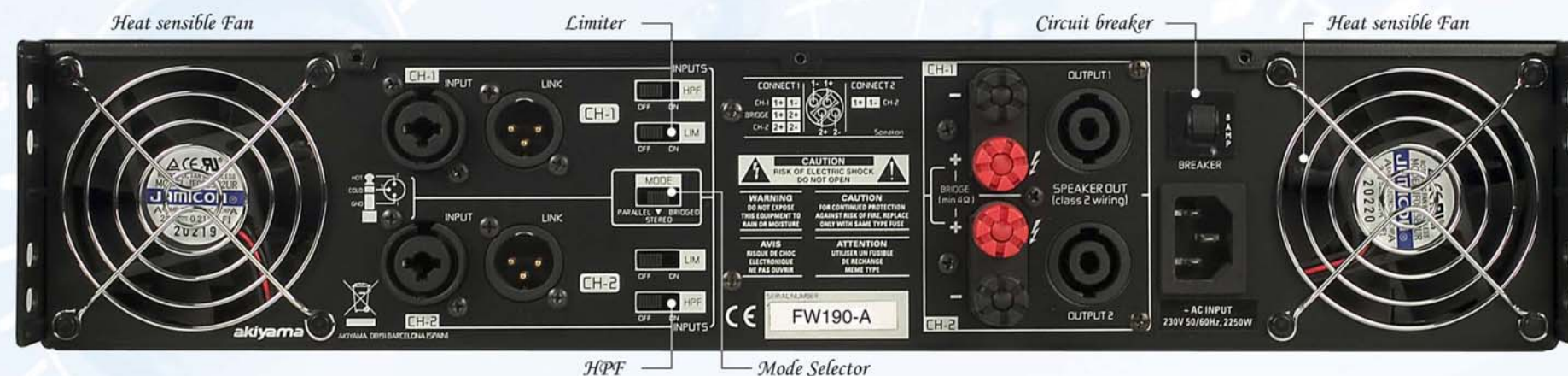
**Signal** These green LEDs will illuminate to indicate that a signal is present at the amplifier input, and that the signal is being amplified.

**Signal Level** Los indicadores verde y amarillo nos informan del nivel de la señal amplificada.

**Saturation** These red LED will illuminate at the clipping threshold. If it lights frequently, you maybe overloading the HPA Series and a distorted signal is probably being output. Under heavy clipping activity lower the channel gain controls to reduce the risk of damage to your speakers and amplifier.

**Protection** These red LED indicate that the channel is in Protect mode. When the channel goes into protect mode all output for that channel will turn off by output relay. The protect LED will light when overheating or other severe problem occur.

This is to protect any speakers connected to the channel. These LED light for approximately five seconds whenever the A Series is powered on and to fade slowly when the amplifier is powered off. It is normal.



**Limiter** When the input signal connected to your amplifier is too high, you end up with a distorted output signal. To prevent this, both channels of your A Series features a clip limiter that can be engaged or disengaged selectively.

**HPF** These slide switch are used to activate the built-in High Pass Filter. The HPF rolls off signals below 40Hz. This improves bass performance by limiting subaudio cone motion, making more power available for the speaker's rated frequency range. When the filter is turn off, a 5 Hz roll off protects against DC or deep sub-audio inputs.

#### Mode Selector

**Stereo Mode:** In stereo mode, both channels operate independently, with their input gain controls. Signal at channel 1's input

produces output at channel 1, while signal at channel 2's input produces output at channel 2's output. Recommended minimum nominal load impedance for stereo operation is 2 ohms per channel.

**Parallel Mode:** When set to Parallel mode, a signal applied to channel 1's input will be amplified and appear at outputs for both channel 1 & 2. With set to parallel. The parallel mode is well-suited for applications in which driving two speakers with the same signal but with separate amplification.

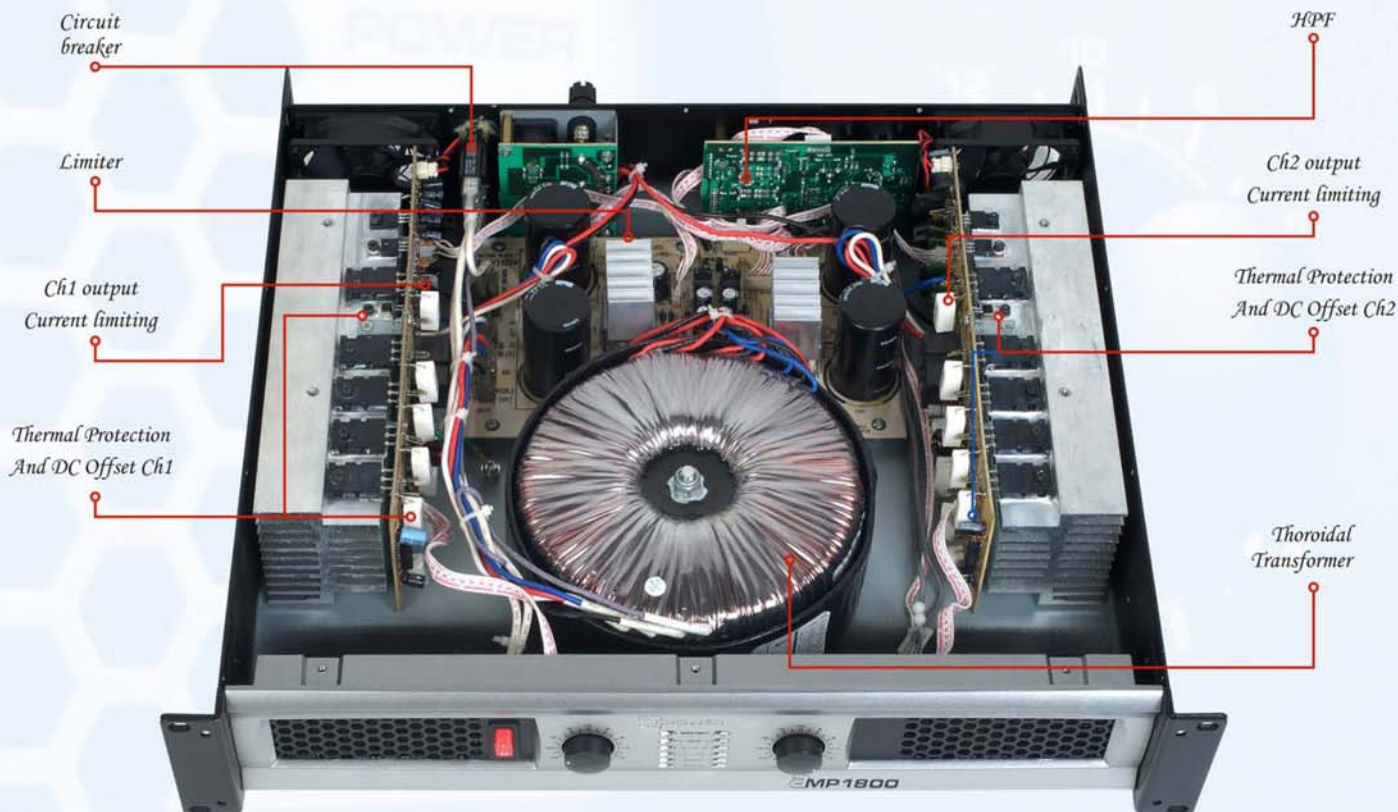
**Bridged Mono Mode:** Bridged mono mode straps both amplifier channels together to make a very powerful, single-channel monaural amplifier. One channel "pushes" and the other channel "pulls" equally, doubling the power over that of either channel alone. Therefore the voltage is doubled, the peak power is quadrupled, and program power is roughly three times as high as that of the individual channel. Signal is applied to the

channel 1 input only and channel 1 input gain control is used to adjust signal level. The input gain control belonging to channel 2 are not used.

**Heat sensible Fans** This is a variable speed cooling fan. Cooling air enters the amplifier through the fan ports located on front of the amplifier chassis, Be sure not to block these ports when installing the amplifier or other associated equipment.

**Circuit breaker** The breaker acts in place of common discardable fuses. This circuit breaker will trip if there is a fault with the main voltage or if maximum output is exceeded. Simply depress the circuit breaker and power up the unit again.





**SPECIFICATIONS**

	<b>AMP 850</b>	<b>AMP 1400</b>	<b>AMP 1800</b>
Rate Power (1 kHz, THD 0.5%)			
Stereo @ 8 Ω	210 W	300 W	400 W
Stereo @ 4 Ω	320 W	450 W	600 W
Stereo @ 2 Ω	430 W	700 W	900 W
Bridge @ 8 Ω	650 W	900 W	1200 W
Bridge @ 4 Ω	850 W	1400 W	1800 W
Input Sensitivity (4Ω, 1 kHz)		4 dBu	
Input Impedance		30 kΩ Balanced / 15 kΩ Unbalanced	
Input CMRR (1 kHz)		>60dB	
Slew Rate (8 Ω)		40 V/msec	
Frequency Response (±0.5dB)		20 Hz ~ 20 kHz	
Class		AB	
T.H.D (1 kHz, Rated Power)		< 0.03 %	
Signal to Noise Ratio		> 100 dB	
Damping Factor (8 Ω, 400 Hz)		> 250	
Channel Separation (8 Ω, 1 kHz)		> 80 dB	
Power Source		AC 100~240 V, 50/60 Hz	
Weight (Net)	12,6 Kg	15,4 Kg	18,0 Kg
Dimensions (W x H x D)		482 x 88 x 420 mm	

