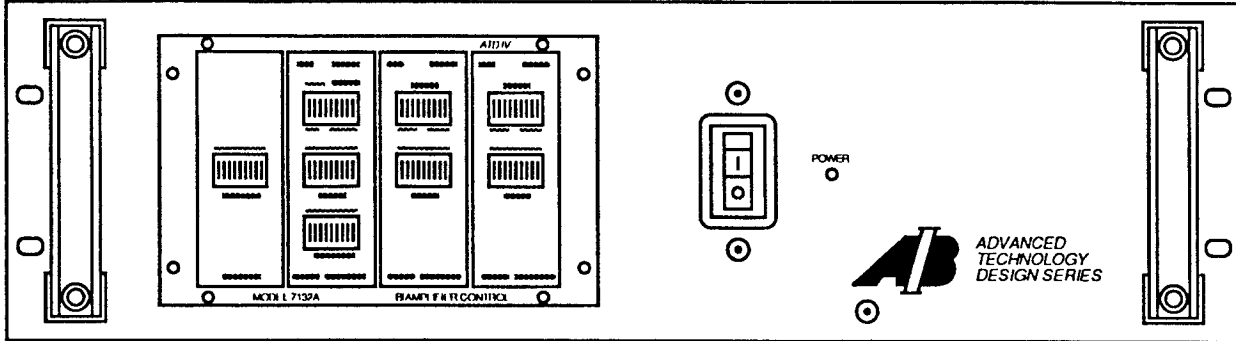


ADVANCED TECHNOLOGY DESIGN SERIES

7132A BIAMPLIFIER



ADVANCED TECHNOLOGY

Advanced Technology Design Series IV from AB International is a modular system of high performance power amplifiers and electronic signal processing that may be precisely tailored to the specific requirements of professional loudspeaker components.

The 7132 is a three-output biampifier system featuring two separate high frequency power amplifiers with independent power response equalizers. It is intended for central cluster applications comprising 'near throw-far throw' horn and low frequency loudspeaker components.

The low frequency power amplifier is fully-complementary and operates from a six-level logic-gated power supply that adapts to the waveform of the input signal, providing only the DC rail voltages that undistorted amplification requires. The result is tremendous output capability, cool operation and unconditional stability over an unusually wide range of load conditions. A delayed-ON, instant-OFF muting control circuit allows internal supply voltages to stabilize before loudspeakers are connected. Speaker connections are instantly removed, should there be an interruption of AC power.

Included in the 7132A are three power amplifiers, system high pass filters, precision step attenuators, fourth-order Bessel active crossovers, an all-pass delay network for time-phase correction, low frequency Thiele-Small alignment equalization, balanced and unbalanced inputs with looping provision and independent power response compensation for professional compression drivers on each of the two HF outputs.

For users desiring specific non-standard features and/or signal processing, a wide range of options are available for this purpose. See 'Optional Equipment' brochure for details.

SPECIFICATIONS

Type:	Three output biampifier with on-board signal processing
Power output: ¹	LF: 500 w at 8 Ω 750 w at 4 Ω 1000 w at 2 Ω HF ₁ : 150 w at 8 Ω HF ₂ : 150 w at 8 Ω
Gain:	32.5 dB, LF-HF ₁ -HF ₂
Input sensitivity: ²	1.5 Vrms (referred to rated 8 Ω LF output)
Input impedance:	15 k Ω , balanced or unbalanced
Noise level:	100 dB below rated outputs, unweighted
Crossovers: ³	800 Hz, 4-pole (24 dB/octave) Bessel response
Signal processing: ³	System high pass (40 or 80 Hz) 2nd-order M-derived w/adjustable underdamping for assisted Thiele-Small alignments Adjustable low-pass delay for LF output Adjustable equalization for HF ₁ and HF ₂ power response compensation
Controls:	Power, system level LF: Delay, level, high pass/EQ HF ₁ : level, EQ HF ₂ : level, EQ
Input connectors:	XLR-3 (bal.) with loop-thru and ground lift switch, 1/4-inch (unbal.)
Power requirements:	120/240 VAC, 50/60 Hz, 500w (avg.) 1800 w (max.)
Physical:	5-1/4" (13.3cm) H x 19" (48.3cm) W x 13-1/2" (34.3cm) D; 45 lbs. (20.5 kg.)

1. Continuous power output at less than 0.1% THD, 20 Hz to 20 kHz, outputs normalized for full-range operation.

2. With all level controls adjusted for zero attenuation, normalized response to a swept input signal will be 'flat'.

3. A wide range of optional crossovers and signal processing is available. Please refer to 'optional equipment' for details.

FEATURES AND CONTROLS

LEVEL

One of four precision level controls used in the 7132A. Each switch is calibrated for dB insertion loss, and the selected values sum directly. 12.5 dB attenuation is illustrated.

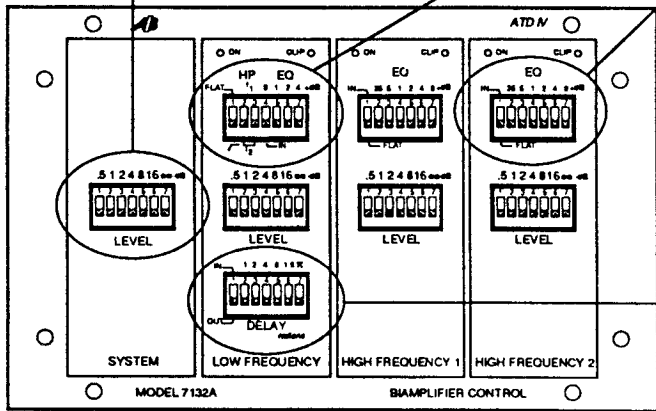
HP EQ

High pass filter and associated EQ control is at left. The high pass filter is 'in' at 40 Hz (f_1). The EQ is enabled, with 6 dB boost. At right is the response, with EQ in and out.

EQ

High frequency EQ control and HF indicators (left). The green 'on' LED indicates presence of HF signal, while the red 'clip' LED shows true clipping. These features are repeated for all output channels. The EQ provides correction for driver power response.

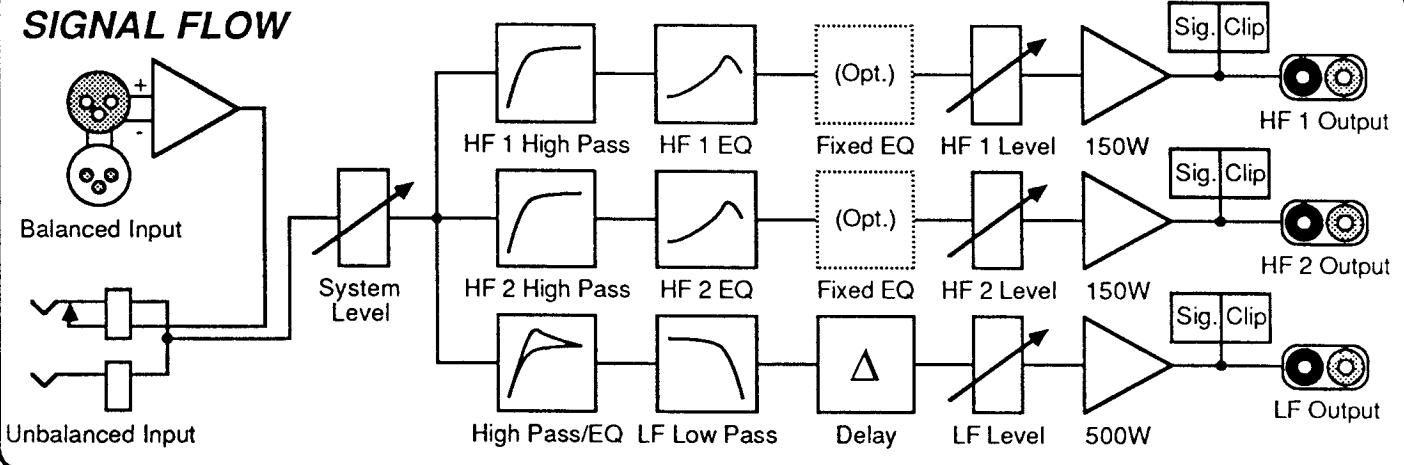
A wide range of options are available. Shown is 12 dB boost centered at 14 kHz beginning at 3.5 kHz for a popular 2" throat driver, with control settings above.



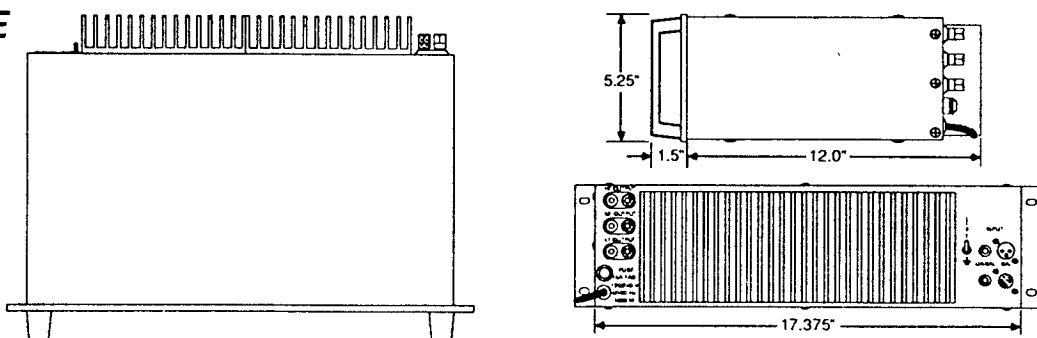
Low frequency delay control. Delay circuitry is included in the LF output channel to correct for time-phase offsets between the LF and HF loudspeaker components. Switch positions are marked in radians relative to the low pass frequency. In the example, 4.04 radians have been selected, which corresponds to a physical offset (independent of other considerations) equal to 10.7 inches at 800 Hz. With fourth-order (24 dB/octave) Bessel linear phase crossover filters, the 7132A will deliver virtually seamless, phase coherent response in 'long-throw/ short-throw' two-way loudspeaker array applications. An 'in-out' switch allows immediate comparisons, with and without the delay compensation.

DELAY radians

SIGNAL FLOW



APPEARANCE



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