

# AMPTEK AT-24C COMPRESSOR AMPLIFIER



The AMPTEK AT-24C is faithful rendition of classic 1950s tube recording technology turned studio legend. An American utility P.A. compressor known for making its way across the pond where British studio technicians modified it to be used on some of the most iconic recordings of all time, the design remains an industry standard nearly seven decades later.

Vari-mu compression yields exceptionally musical, smooth results through high levels of gain reduction on individual sources and buses alike. Equipped with continuously variable input, output, threshold and release controls, users are capable of achieving a wide range of leveling and color intensity options during compression, while running the unit with the compression circuit bypassed allows engineers control over greater levels of tube and transformer coloration and saturation.

A key feature to compression operation lies in the variable threshold adjustment in vari-mu style compression. Beyond altering the level of gain reduction onset, threshold adjustment interacts with compression ratio. Higher thresholds can achieve ratios of 4:1 with sharper knees while lower thresholds achieve ratios of 2:1 with a smoother knee.

Following the high standard set forth by the original designers, the AT-24C is a period-accurate representation of vintage technology and quality. Assembly and component selection were taken into complete consideration in the design of the AT-24C, employing custom Cinemag transformers re-engineered to the original Peerless spec using the correct laminations, new old stock tubes, carbon composition resistors and polyester film capacitors, assembled point-to-point for maximum reliability and long term serviceability.

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## SPECIFICATIONS

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**MAXIMUM GAIN:** 40dB (with 600 ohm source, Gain Reduction Bypassed)

**ATTACK TIME:** 23mS, fixed

**RELEASE TIME:** .2 to 2.6 seconds for 63% recovery

**INPUT IMPEDANCE:** 15000 ohms bridging

**OUTPUT IMPEDANCE:** 600 ohms

**TUBES:** 1 x 6ES8/ ECC189, 1 x 6CG7/6FQ7, 1 x 6AL5/ 5724

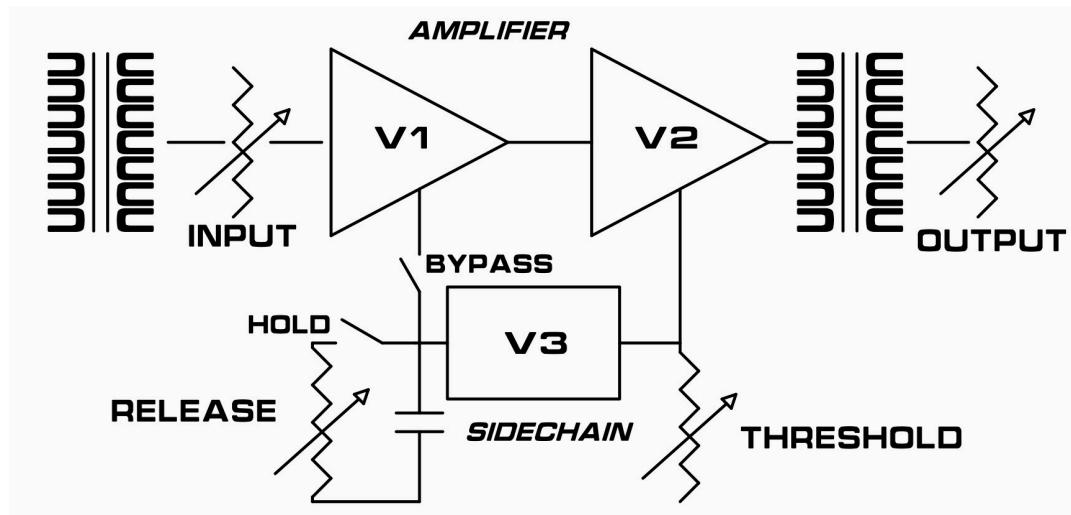
**CHASSIS:** Steel enclosure, Aluminum front panel

**BULBS:** #47 x 2

**FUSE:** 1/2A, 3AG

**POWER SUPPLY:** Self-contained, 120 volts 60 cycles

## Signal Block Diagram



## CONTROLS AND OPERATION

**INPUT:** Adjusts input volume into amplification circuit for varying amount of compression

**REL:** Continuously adjustable variable release time (clockwise for faster release)

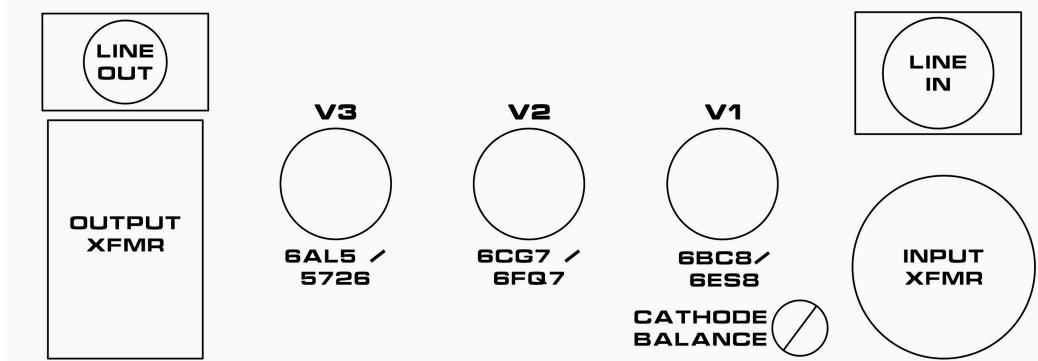
**BYP:** Disconnects compression circuit when down, allowing straight amplification and increased coloration when driving the input

**THR:** Adjustable sidechain threshold control (clockwise for higher threshold and ratio)

**HOLD:** Disconnects the release when down, allowing preset amounts of compression to be dialed in and held. Useful when high amounts of compression are desired at the beginning of source material so as to prevent compression onset artifacts

**OUTPUT:** Level control post output transformer, allowing for increased levels of gain reduction or saturation without overloading the following device

## Rear Panel Layout



\*\*\*Cathode balance adjustment helps reduce thumping. A closely matched tube is installed and calibrated however replacing the tube or through prolonged operation may require rebalancing. For calibration refer equipment to qualified service personnel. High voltage and risk of electric shock are present inside the unit.\*\*\*