VPI ADS

Manual

Setup and Instruction Manual

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ADS Design and Functionality

DESIGN OVERVIEW

The ADS design includes two pure analog frequency generators featuring low distortion and noise; a high current Class-A/B amplifier that is transformer-coupled to the turntable output; analog control logic for low noise operation; 33/45 RPM analog speed adjustment controls with center detent positions that are factory calibrated for 60/81Hz; analog logic controlled run/stop switching with the output RMS voltage @ 120VAC on startup, followed by a step down to 90VAC after an 8-second delay for quick starting of heavy platters.

THE ADS: OPERATION

Operational features

The ADS includes a lighted power on/off switch allowing it to remain powered up during listening sessions for the oscillators to remain warmed up for lowest distortion. There is a separate run/stop switch to control the motor operation. The ADS also utilizes separate 60 Hz and 81 Hz oscillators to eliminate unnecessary switching circuitry in the oscillator circuits for long term speed stability and low oscillator distortion. Turntable speed is chosen using a switch located between the 33 RPM and 45 RPM speed adjustment controls; LEDs indicate the Run/Stop condition and chosen speed. Speed adjustment controls provide a center detent position that is factory calibrated to 60 and 81Hz +/- .02 Hz in their center detented position. The controls also provide fine speed adjustment of approximately 3 Hz through continuously variable linear adjustment controls. The circuitry provides a startup voltage of approximately 120VAC for 8 seconds on startup to assist quick speed ramp of heavier platters, then reduces to 92VAC for its steady state run voltage.

Speed Control and adjustment

The front panel contains a two-position pushbutton switch for selecting either 33 RPM or 45 RPM operation. Pressing the switch either latches it in or releases the switch to its outward position for 33 RPM operation. There are separate speed adjustment controls for 33 and 45 RPM. The controls have a detented center position that is factory calibrated for 60 Hz (33 RPM) and 81 Hz (45 RPM). The speed is also continuously adjustable +/- 3 Hz for fine tuning of the platter speed using a stroboscopic disk and 60 HZ light source. Blue LED indicators adjacent to the controls indicate which speed is set at a glance.

Motor Stop and Run

The ADS is meant to be left powered on during the listening session. The platter is started and stopped by the front panel Run/Stop momentary pushbutton switch. There is an LED indicator the glows red when stopped and green when the platter is turning.

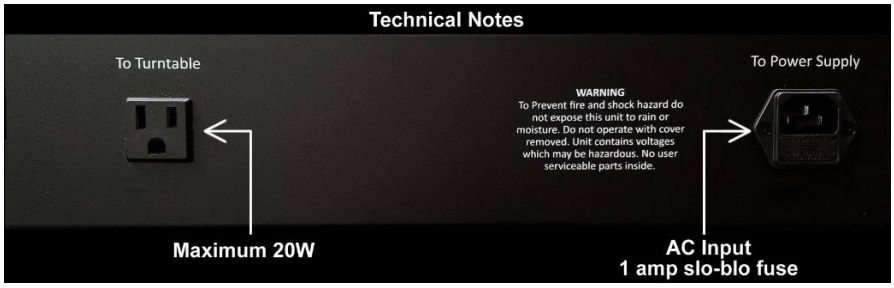
System power

There is an IEC power module on the rear panel to supply AC power to the ADS. The IEC module contains a fuse drawer that holds a 1-amp slow blow fuse protecting the ADS from electrical system malfunctions.

AC power to the ADS is controlled by the power switch located on the left-hand side of the front panel. When the ADS is powered up, the indicator in the switch glows blue indicating the internal power supplies are functioning properly.

Output to Turntable

The 125 VAC max output to the motor is supplied by the identified AC receptacle on the rear panel. The receptacle output provides a maximum 20 watts. Higher wattage loads will seriously damage the ADS.



SPECIFICATIONS:

Line Voltage: 115/230 VAC Factory set

Line frequency: 50/60Hz

Current maximum (fuse): 1amp (Slo-Blo)

Output fuse: .25 amp (Fast Blo)

Output voltage: Startup 120 VAC, Run 92VAC

Output Frequency Range: 33 RPM

45 RPM

Output current: 200ma AC RMS

Dimensions: 16” X 3” X 12” (W X H X D)

Weight: 10lbs