



# DA-10

*Vacuum Tube USB DAC*



Made in USA

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### **Hagerman Audio Labs**

PO Box 26437

Honolulu, HI 96825

808-383-2704 (voice)

808-394-6076 (fax)

[www.haglabs.com](http://www.haglabs.com)

# Description

The DA-10 is a world-class analog-to-digital converter employing the latest technologies paired with vacuum tube amplification for a very clean and open musical reproduction. Input is via USB and optimized for 16 bit 44.1k redbook standard. Data is synchronously upsampled to 24-bits at 312.8kHz and re-timed using a super low-jitter flywheel type VCXO-based re-clocker circuit. The actual conversion is done using R2R 24-bit chips (the most expensive you can buy) with phase linear (perfect transient response) output filter / translators. A high-transconductance vacuum tube stage then provide the necessary gain and output buffering.

## *Package Contents*

- DA-10
- Power cord
- USB Cable

## *Specifications*

Item	Specification
Input	USB 1.1
Data Rate	44.1k samples per second, stereo 16 bit
Jitter	<10ps
Bandwidth (analog)	8Hz to 400kHz
Gain (analog)	33dB
Distortion	0.08%
Output Impedance	1.5k ohm
Output Voltage	1.8Vrms
SNR	
Size	10" x 10" x 4"
Weight	
Input Voltage	120Vac 35W
Tube Compliment	7788 (E810F) x 2

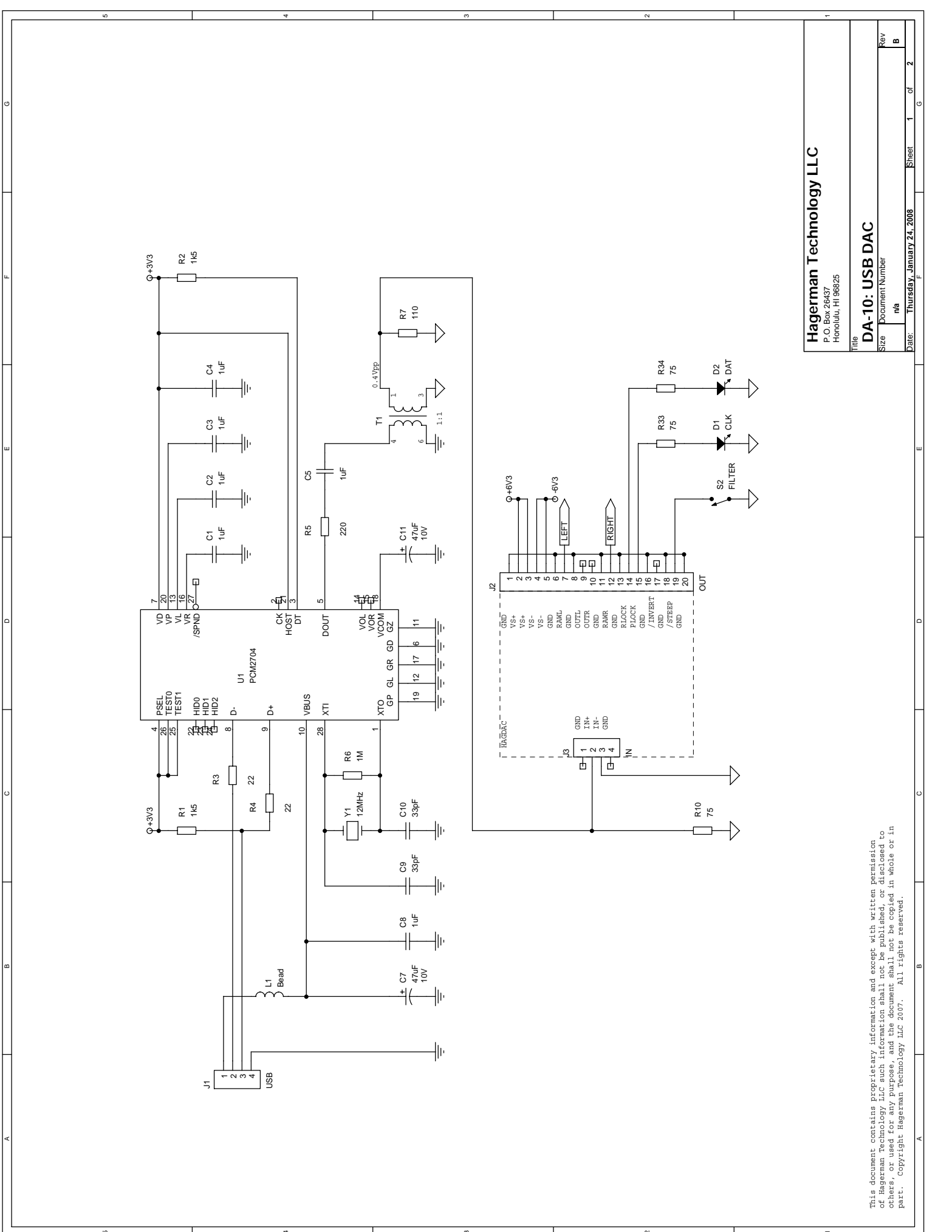
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# Operation

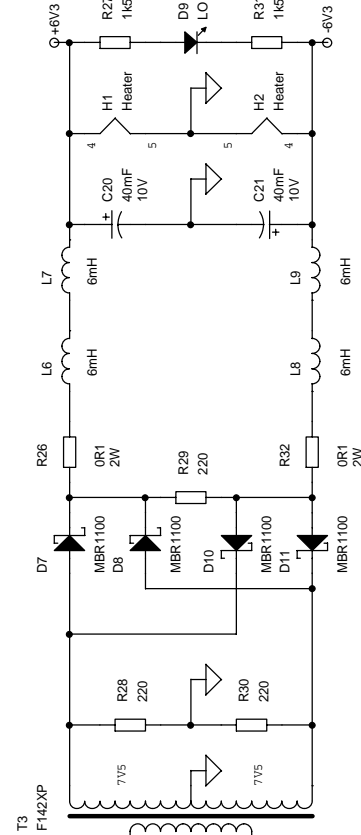
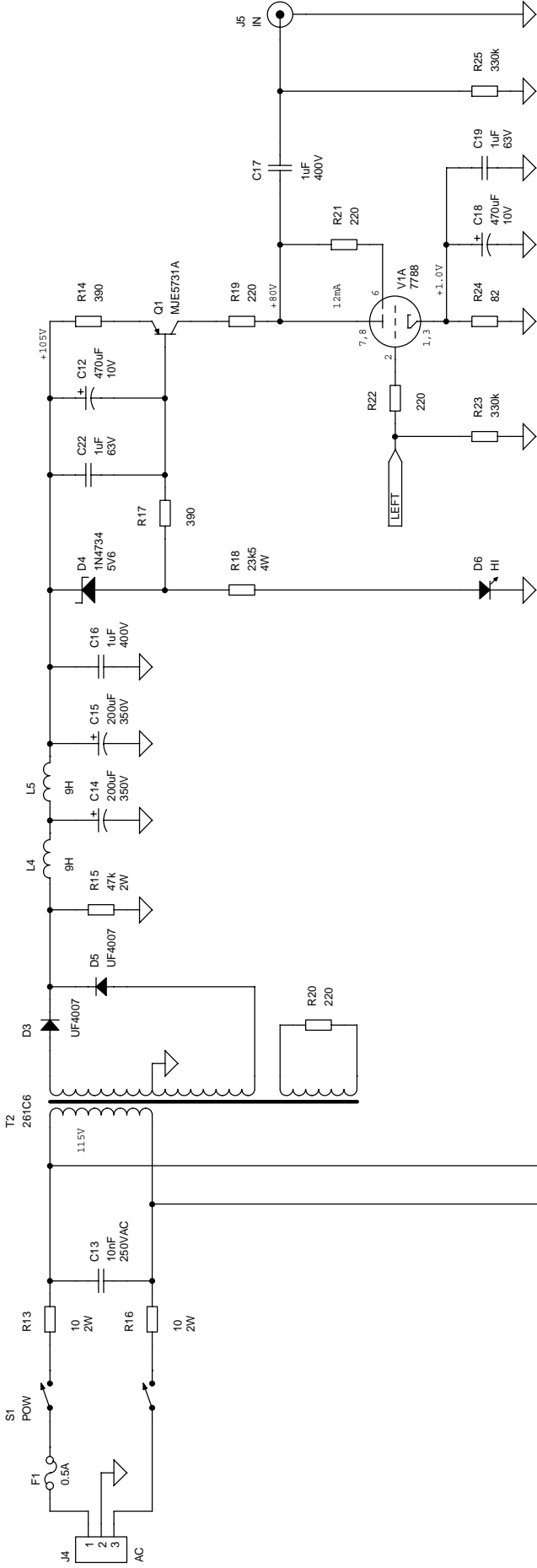
The DA-10 connects between your computer (via USB cable) and linestage (or integrated amplifier). There are four front panel LEDs.

- LO:** Indicates low voltage and filament supplies
- HI:** Indicates high voltage tube plate supply
- CLK:** Indicates the reclocking circuit has locked
- DAT:** Indicates valid data received at the USB input

Connect the power cord to a 120Vac source. Turn on using the pushbutton power switch on the back panel. The DA-10 requires about 30 seconds warm-up to start playing, and another 30 minutes to sound its best, which is typical of high quality tube equipment. The **FILTER** switch on the back selects between slow and fast rolloff modes for the digital filter. Slow mode is more transient correct for better listening.



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