

# Warm Audio

ISSUE #114

JUL/AUG 2016

## (<http://www.warmaudio.com/>): WA-2A Tube Optical Compressor

REVIEWED BY ADAM KAGAN [/REVIEWS/BY/ADAM-KAGAN]

Warm Audio continues to disrupt the pro audio world, this time with the WA-2A, a mono tube compressor based on the revered Teletronix LA-2A — a design that is now over 60 years old. The company's mission, to produce pro-level gear at affordable prices, has worked out well both for its founder, Bryce Young, and its customers, myself included. Warm Audio mass-produces high-quality mic preamps, compressors, and equalizers, relying on economies of scale to keep the retail costs down while still maintaining excellent build quality and premium componentry. These are not just straight clones of vintage pieces; Warm gently expands the feature sets with additions like stereo linking, variable signal paths, and expanded gain-structure settings on many of its pieces of gear.

The WA-2A is as much a true LA-2A as any modern compressor can be. It is based on the Teletronix schematic with the same all- discrete tube audio path as the original circuit, using modern, custom-wound transformers from CineMag and the well-regarded Kenetek T4B optical attenuator. Along with the four tubes

- For the audio path, the WA-2A even provides an o

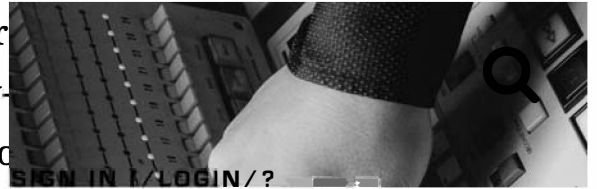
socket which allow the user to install an original 6AQ5<sup>(f)</sup> opto driver tube in place of the factory-inst tube. This tube doesn't affect the audio path, it is a voltage driver for the optical cell and basically boosts the control voltage to the light source in the optical cell which controls the gain reduction. The Kenetek T4B is a spot-on substitute for the extinct T4B, but it is socketed and can easily be subbed out with your choice of T4B, should you wish to try various modern T4B options.

The WA-2A only takes up two rackspaces, but the top of the WA-2A is vented, and I would recommend leaving a full empty space above the unit. Even after long days of use, I found the unit to run only slightly warm to the touch, but ample cooling, I am told, will extend the life of the T4B cell. The unit's front panel reflects the aesthetic of the original, with a flat-grey paint job and three vintage-style chicken-head knobs for output gain, peak reduction (threshold), and meter-mode selection. One toggle switch powers up the unit and another selects between compress or limit modes. The rectangular VU meter lights with a warm, vintage-like glow. The pre-emphasis screw, originally located on the front panel of the LA-2A, now appears as a knob on the rear panel, alongside the meter adjustment and stereo-link adjustment knobs. Audio inputs and outputs connect via either balanced XLR or 1/4" TRS connectors, while the stereo-link connection uses a single 1/4" TRS connector. This unit, like the Warm Audio EQP-WA [Tape Op #110], uses a standard IEC power cord, eliminating the need for a wall-wart power supply.

I'm addicted to opto-based compressors for vocals, bass, and lead instruments due to their smooth (program dependent) release times and transparent (instantaneous) attack characteristics. Plus, with only two knobs to adjust, finding the appropriate settings can be done quickly. Having been designed for broadcast purposes, the original LA-2A would be adjusted by a technician to respond more to speech frequencies or to broadband program frequencies via the onboard HF-Bias pot. This bias adjustment affects the WA-2A similarly to a sidechain high-pass filter. For full-range instruments and upright bass, I like to

• leave the bias flat, but for vocals or electric guitar

the compressor becomes less sensitive to low-level signals and seems a bit less "grabby" or obvious in its behavior.



the WA-2A sat on top of my outboard rack, so I could easily reach the bias knob, but when the unit is mounted in a rack, the bias knob will be difficult to adjust. Maybe Warm could produce a revision with the bias on the front panel? I find the bias adjustment very useful and often play it against the reduction knob to find the most transparent settings for vocals and lead instruments.

During my testing, I used the WA-2A for jazz, pop, and R&B tracking, as well as for mixing lead vocal, upright and electric bass, acoustic and electric guitar solos, and mono drum-room mic. While mixing in-the-box using analog inserts, I compared the WA-2A to my Summit Audio DCL-200, Anthony Demaria Labs ADL 1000, and Inward Connections Vac Rac TSL-1 and The Brute compressors — all of which I find invaluable in my mixes. While I use plug-ins for many compression duties, these hardware units help vocals and basses sit perfectly in my mixes. The ADL 1000 provided the most pronounced color change, with a dark, thick tone that I don't find that useful for pop, but sometimes just right for heavy rock material. The Vac Rac and The Brute are my go-to compressors, as they provide extremely transparent dynamic control and a subtle harmonic density, even when smashing a vocal by more than 15 dB. The WA-2A, likewise, does an excellent job of transparent compression for both light gain-riding and severe clamping. On lead vocals, the WA-2A maintained a consistent tone, and the microdynamics remained intact, even with an average of 5—7 dB of gain reduction. In plain English, the WA-2A sounds clean and natural, even when working hard. The overall tone of the WA-2A is a bit brighter, or more high-frequency—forward, than the Vac Rac and The Brute, so the WA-2A provides a subtle and unique presence and energy to lead instruments. I mostly stay in the compress mode on LA-2As, but the limit mode on the WA-2A provided the perfect spank and control for a particularly percussive acoustic guitar solo. That kind of dynamic control easily took the place of an LA-3A in limit mode. I would not hesitate to put the WA-2A across any vocal, bass, or lead instrument in my mixes. On bass, I found the WA-2A to provide firm control, especially of the

• **lowest octave, which helped an upright bass sit w**

arrangmnt. Th WA-2A benefits the source wit  
very (0) vintage tube compression, and a slight transform  
if you were to go the plug-in route, it would probably take at least two or three  
plug-ins to start to emulate all the sonic enhancements that this box provides.

Warm Audio has once again hit the nail on the head, producing a tried-and-true product in the WA-2A with both vintage character and modern conveniences. And at its price, its competition is thin.



---

***\$899 Street; [www.warmaudio.com](http://www.warmaudio.com) (<http://www.warmaudio.com>)***

***Adam Kagan [www.mixer.ninja](http://www.mixer.ninja) (<http://www.mixer.ninja>)***