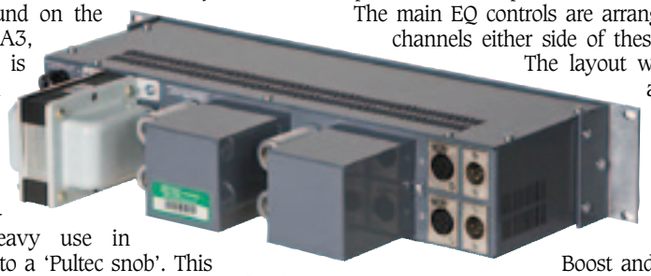
Retro Instruments 2A3

Yes, it's a Pultec clone but it's one with some interesting modifications that you won't see elsewhere. GEORGE SHILLING struggles to write through the smile.

The 2A3 is a dual-channel programme equaliser, and eagle-eyed readers will probably already have spotted similarities with certain other designs. Retro is based in Northern California and is slowly building a catalogue of vintage-inspired valve based outboard, as well as offering to service classic tube gear for locals.

And if you have noticed the similarity of the controls to those found on the classic Pultec EQP-1A3, you are correct, this is indeed the inspiration for the design. In researching and developing the 2A3, Retro borrowed a highly prized EQP-1A3 that was in heavy use in Nashville, belonging to a 'Pultec snob'. This is not an exact clone, but the design was refined several times until that owner was impressed that his pride and joy had been replicated. Beta tests were then run with five users, during which the filters were improved, different tube brands were tried, and the interstage transformer was improved. And, perhaps I should whisper this bit, … Retro claims the finished product sounds better than the original Pultec.



The unit is beautifully and robustly constructed (US$4495 + VAT). Cramming two (normally 3U each) Pultecs into a smallish box means that the 2A3 is incredibly heavy for a 2U unit, and although the thoroughly vented case itself is very shallow, valves and transformers stick almost as far again beyond the rear of the case. The grey paintjob is super-smart, the knurled knobs are gorgeously damped, and I love the detailing of the 0-100 scaled legending for super-accurate recall of settings on the boost and cut knobs on the front.

Despite packing two channels into a small space, the knobs seem perfectly sized and perfectly spaced for my engineer fingers to tweak. The big toggles and switched knobs work positively without feeling clunky. On the rear panel, two pairs of XLRs are neatly arranged at one end of the case for stereo input and output, with an IEC mains socket, fuse holder and voltage switch at the opposite end. The mains transformer is absolutely enormous and seems to significantly contribute to the massive weight. Retro has deliberately over-speced this and it runs cool, while four JJ valves protruding here under their smart black covers also seem to run fairly cool. There are three audio transformers in each channel, which undoubtedly sweetens the sound of the 2A3. Astonishingly, during build Retro tests each filter component by hand to assure better than 1% tolerance for the two channels, justifying the precise knob scale legending.

Upon powering up with a big central toggle, a small red Power light gently illuminates. The other large central toggle is unique to the Retro. This controls a Subsonic Filter, with settings at 40Hz or 90Hz (or Off). It operates on both channels, and has a peaking response and a sharp cut-off.

The main EQ controls are arranged with the two channels either side of these central toggles. The layout will be familiar to anyone who has used a Pultec. First, there are individual Bypass toggles for each channel. There are the expected Boost and Atten knobs for the low band, with frequencies selectable at 20, 30, 60 and 100Hz. The low band offers the usual Pultec attributes when combining boost and cut here, with a musical sounding dip at the turnover frequency. On a mix bus with already ample bass energy the sound is often tightened up with slightly more Atten than Boost, removing a bit of mud. So far, so Pultec. But bringing the Subsonic Filter into play further enhances the very low stuff when set at 40Hz. More anon.

The Mid Boost band, while ostensibly similar to the Pultec, also includes a few extra frequencies. There are settings at 1.5 (new), 3, 4, 5, 6 (new), 8, 10, 12, 14 (new), and 16kHz. This Mid Boost is a very beautiful sounding band. On vocals, selecting any of the higher frequencies and cranking it up sounds like lifting a blanket from the speakers. All the expected sweetness of a Pultec is achievable, with arguably an even slightly more vibrant, musical and open sound.

The new frequencies come in handy. I particularly liked subtle use of the 14kHz boost, with Bandwidth set fairly narrow, for adding a sparkle to the mix when 12k is a bit 'zizzy' and 16k too super-sonic. I often find 5kHz to be a significant area for tweaking, so adding 6kHz brings even more flexibility around this area, and it worked well bringing a little life to a slightly wooden sounding bass. And the 1.5kHz setting can also be very useful when working on bass and vocal sounds, and for bringing back power to guitar and other sounds that seem to have too much of a smiley loudness curve. If using that setting leaves you wishing for an additional EQ band, Retro's Phil Moore suggested a good trick, ('the holy grail on bass') which is to feed one channel into the next for a full-on four-band passive EQ, and indeed this does enable some great flexibility that you might not normally associate with this type of EQ.

The High Atten band is faithful to the original, with frequencies at 5, 10 and 20kHz, and for overly-harsh signals some High Atten gently sweetens things. Although it can be difficult to suppress the instinct to make everything brighter, I found this useful for warming bass sounds or settling obtrusive sounds into the mix.

The new Subsonic Filter is a genius idea for a modification to the original Pultec design, and it can enhance the whole spectrum. It operates on both channels independently of the channel EQ bypass toggles, but is an integral part of the filter network, between the input transformer and the interstage transformer in the passive filter. At the 40Hz setting, it can tighten things in a fairly subtle way that just pulls the mix together. It also works well on bass sounds. At 90Hz more evidence of its activity is noticed, but on vocals this can do wonders. On a female vocal I achieved noticeably more clarity, plus a little extra warmth if I used a 100Hz (boost knob at 40) with Atten knob all the way up around 75, and the 90Hz filter engaged. Even with no mid or treble boost, the vocal seemed to be lifted beautifully, with much of the apparent low-mid gak removed, but still plenty of gorgeous warmth.

Across any mix, and on every signal I sent through the 2A3, it was always possible to add a little enhancement and beautifully sweeten or enhance in some way. The Retro 2A3 makes a pretty bold claim of bettering the original Pultec, but I don't feel I can honestly deny that assertion. It undoubtedly has wow factor — as soon as you pass signal through this box and turn the knobs you get a warm feeling and a smile developing. You quickly realise it's doing something rather special.

While there are plenty of alternatives in the Pultec clone market, this one can justifiably claim to be one of the best. ■

PROS One of the best sounding Pultec-inspired designs; great modifications — Subsonic Filter and useful extra Mid frequencies; beautiful build.

CONS Subsonic filter acts on both channels simultaneously.

EXTRAS The Retro Sta-Level is a replica of the 1956 Gates Sta-Level and uses the 6386 tube in a classic GE circuit design. Alternatively, the Gold Edition Sta-Level uses a pair of commonly available 6BJ6 tubes. The customer has the choice to use their own 6386 or the 6BJ6 provided with the unit.

Contact

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