



RETRO 2A3 PROGRAM EQUALIZER

It might be based on the vintage Pultec EQP-1A, but the Retro 2A3 isn't some bodgy knock-off. It's sweet-sounding EQ right out to 11.

Text: **Andy Stewart**

NEED TO KNOW

Price
\$5287

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Pros
Smooth and effortless EQ.
Never sounds harsh or ugly.
Produces epic yet controlled bottom-end.

Cons
Not the most comprehensive EQ on the market.
Subsonic filters always engage across both channels.

Summary
If you're looking for an EQ that adds clarity without glassiness, bottom-end without murkiness and pristine midrange without the side-effects, then the Retro 2A3 is a compelling option. It's not the most comprehensive, and certainly not the most surgical, EQ on the market, but what it does well – add dimension to bottom-end signals, smooth openness to tops and focused and balanced midrange – makes it a box worth owning.

Specs of Note
Signal-to-noise: >76dB.
Channel Separation: >70dB.
Frequency response: 20Hz – 20kHz (±1dB).
Harmonic Distortion: less than 1%.
Headroom: +26dBu.

Anyone who can't afford to spend around five grand on a passive stereo equaliser this year – or indeed be informed of the fact that one even exists – really should just turn the page right now. Would that I'd been in that privileged position the day the courier arrived with the new Retro 2A3 Program Equalizer.

As it was I was a sitting duck. In the middle of a mix, the 2A3 landed without warning... I opened the unknown package suspiciously, saw it was a Retro EQ and immediately recalled my previous fling with the Retro STA Level. A few months earlier I'd fallen in love with that compressor's incredible sound and large dials, only to have my heart broken the day it left me for a new owner. 'I don't think I can go through that again,' I thought to myself, as I involuntarily mounted the valve EQ on top of the outboard rack. My heart was saying 'no', but by body went ahead and patched it in anyway. I was out of control. Warning bells were sounding... danger was all around me.

TEA FOR 2A3

Several weeks have gone by since, and I'm already starting to get jumpy. Every time the phone rings I think it's the distributor ringing to inform me that the Retro needs to be returned, or worse, forwarded to its new owner. Am I just crazy for passive EQ, or is the 2A3 yet another object of desire to emanate from the Retro factory?

As it is, the Retro 2A3 Program Equalizer is one of the sweetest sounding passive EQs I've ever had the pleasure of mixing with. In short, it's superb. But before I pontificate further about the merits of this fine EQ, let's get some of the facts about the unit out of the way.

FROM EQP-1A TO 2A3

As previously mentioned, the new Retro 2A3 stereo equaliser is based squarely on the legendary single-channel Pultec EQP-1A, which requires little or no introduction. Essentially the 2A3 houses two of these fine EQs in a 2RU chassis and utilises similar vintage methodology to the Pultec: point-to-point wiring, Class A/B tube amplification for make-up gain (in this case, two 12AX7s and two 12AU7s), transformer balanced and fully-floating inputs and outputs, and EQ bypass switches (that disable the low- and high-frequency controls but not the subsonic filter or the amplifier).

Like its passive (and renowned) forebear, the Retro 2A3 most notably utilises passive capacitor/inductor-based EQ circuitry, the fundamental characteristic of which is the ability to sound smooth and gorgeous at even the most extreme settings. Where other more modern EQ designs commonly have amplifiers

in their circuits (that often contribute harsh and intolerable overtones to a sound at more extreme EQ settings, but maintain the integrity of the internal gain structure throughout), the passive 2A3 takes the Pultec circuit and runs with it, utilising the smoother, less harsh characteristics of capacitors and inductors to boost and cut signals in and around fixed frequencies (the only downside being a 40dB loss of level inside the EQ, which is compensated for at the output by a valve amplifier stage – see Issue 62's *On The Bench* article for more on the inner workings of a Pultec EQ). For good measure Retro Instruments has also added some beneficial sophistication to the otherwise fairly limited frequency choices of the original design – can I say that about the original EQP-1A without getting arrested by the Pultec Police?

FAMILIAR BUT NOT IDENTICAL

The Retro 2A3 essentially takes the same approach to equalisation as the original EQP-1A, and displays its various controls almost identically. Anyone familiar with the Pultec EQP-1A layout (or its various plug-in equivalents) will immediately recognise the (confusing) format: classic low-end bass boost/bass cut controls form an upside-down triangle on the left, high-frequency boost and bandwidth controls form a right-side-up triangle in the middle, and a selectable high-frequency cut control takes up the right flank. This iconic control set is replicated on both sides of the unit, separated in the middle by the Retro logo, a horizontal power switch (with LED) and the unit's shared three-position subsonic filter (more on that in a moment).

Essentially, there are two aspects of the design that set the 2A3 apart from the original. Apart from its obviously reduced size (it's still generously proportioned and easy to use by the way, despite there being two EQs in a 2RU chassis rather than one EQ in a 3RU chassis) there are three extra steps on the mid/high frequency selector, along with the aforementioned subsonic filter.

The frequencies selectable on the top-end control of the original EQP-1A were 3, 4, 5, 8, 10, 12 and 16kHz, and these are augmented on the 2A3 with 1.5, 6, and 14kHz. This extra choice is extremely handy in practice and makes the stepped design more powerful than ever. On my very first foray with the Retro – during a mix that was already in progress when the unit arrived – I patched the unit across a stereo acoustic guitar recording, adding almost the full quota of boost at 8kHz (with a fairly broad Q) on both channels. This had an immediate and almost miraculous effect, turning what had, to that point, been



a supremely dull, lifeless fluff-ball masquerading as a guitar, into a sweet, clear and open sounding acoustic. What brought smiles to everybody's faces was the fact that it did all this without adding so much as a hint of harshness or squawk – something you'd normally expect to encounter during this kind of radical surgery to a fretted steel-stringed instrument with an 'active' EQ.

At the other end of the spectrum things have also changed for the better. The bottom-end shelving-style boost control, which, when cranked into play on the original EQP-1A, often had the unwanted side-effect of adding too much extreme low-end to a sound, has been made more manageable on the 2A3, by the addition of subsonic filters that cut in at either 40 or 90Hz. Thanks to this addition, instead of having to back off the amount of boost to minimise the unwanted super lows, you can now simultaneously crank the boost *and* cut into the extreme lows, to produce a truly epic sounding low-end that doesn't rattle the neighbours' crockery. The filters utilise an interstage transformer (for coupling one part of the internal circuitry to another) that not only provides a small kick just below the cut-off frequency, it also imparts distinctive transformer qualities – small amounts of limiting and harmonic distortion basically.

CONSUMMATE PRO

The 2A3 works beautifully on everything from acoustic guitars, vocals and bass guitars, to kick drums, overheads and virtually everything else that goes ping, thump or shwing. It also works superbly across a mix bus... something I'd really hoped it would do badly. You see, I've really wanted this EQ to fail me somehow; fall short in some critical area, so that I'd feel more relaxed about putting the 2A3 on a courier and getting it the hell away from me. But alas, I'm now in the extremely awkward position of simply never wanting to let this thing out of my sight. There's even a 19-inch rack space available on the deck of my Neve console... and it's even the same colour! But the asking price? Around 5k feels expensive – to me right now at least. Then again, from a sonic perspective it's worth every penny, and it's certainly far cheaper than forking out for to original Pultecs.

So if you've got the cash and need a classy, high-headroom, supremely smooth EQ that can be applied to just about anything in need of tonal manipulation, try it out yourself. Be warned though, if you don't have the cash, you'll need to sell the TV... and the mountain bike, and the kayak and the... ■