



Analogue Tube AT-101

Despite its short run and long obsolete status the Fairchild 670 compressor remains most highly regarded with examples changing hands for easily the largest piles of cash of any outboard item. **GEORGE SHILLING** encounters what he judges to be the definitive recreation.

The business of recreating obsolete equipment is on a steady upward curve and, as a marketing tool, cloning hard-to-find equipment used on legendary recordings seems to be a winner. This is achieved with varying success depending on (a) the price considerations of doing a proper job and (b) the availability of equivalent components. Even long-established equipment purveyors who realise they are sitting on a potential goldmine sometimes struggle to re-manufacture their own original products with complete accuracy. One of the most highly regarded items of audio processing has for many years been the Fairchild 670 compressor, ever popular with recording engineers for many tasks including vocal, drum and mix bus compression.

It is held in such high esteem that examples change hands for easily the largest piles of cash of any outboard processor. Over the years, everyone who is anyone in recorded music has enjoyed using Fairchild compression, including, of course, The Beatles, yet as unlikely as it seems, there are apparently thought to have been less than 50 units built. In recent years many designs have been created that aim to emulate some of the magical glow and character of the 670 (and mono 660). Some have succeeded in copying some aspects but most fall at the hurdle of component supply, most notably the need for eight matched 6386 valves, an obsolete design. And these are only a part of a catalogue of components including a total of 20 tubes and 11 transformers.

Following a five-year development period Analogue Tube's Simon Saywood appears to have succeeded where all others have failed and has persuaded an EU valve manufacturer to remanufacture authentic 6386 valves, identical in character to the GE originals. The construction and build of a 670 is undoubtedly fairly complex, and with a complement of other difficult-to-source components, it is hardly surprising that it has taken Saywood five years to develop the product. With over 20 years in the business (he currently holds the post of senior technical engineer at London's Metropolis



Studios) and a tube obsession dating from even earlier, this has been something of a labour of love.

He has faithfully reproduced the wiring turrets, commissioned other unique components to be built (such as the specially made Sowter audio transformers used throughout) and painstakingly recreated almost every aspect of the original, improving reliability and component accuracy in some areas. One of the changes (and the only 'downgrade' or perhaps 'crossgrade') is that the Lat/Vert-L/R switch has been replaced with a stereo link switch. Although few AT-101s are likely to be used for vinyl mastering, the Lat/Vert mode of the original device can still be useful — Mid-Side processing can be fun, creating some interesting stereo fields and almost psycho-acoustic enhancement, so I suspect that at some point this may be requested by potential purchasers of the AT-101. Although undoubtedly useful, I have never worried unduly about the lack of a Stereo Link switch on a 670.

An undoubted improvement is that the power supply now takes a couple of seconds to ramp up the heater voltage to help maintain tube life on power up. The tubes run as hot as on the original, and to that end there is a temperature monitoring system built into the

lower panel with a red light warning system. The review unit was supplied with a (rather noisy) fan mounted in the rack above the main unit, and something similar (hopefully quieter) may be offered as an option when production units are supplied.

Changes for the better over the original include chassis mounted XLR connectors, an improved heater cathode supply, Hovland Musicap Polypropylene film capacitors and ceramic tube sockets throughout. Although the chassis design is new, the front panel is broadly similar. The stepped Gain knobs are rather more clicky when switching settings, the knob caps perhaps don't feel as expensive or substantial as they should, but the illuminated vintage meters are lovely, and the etched lettering is business-like.

Every original 670 is different in sonic character, and sometimes those with older components can add a desirable crunch. But even the smoothest, best maintained units add some character and the AT-101 is no exception, albeit at the smoother end of the scale of my experiences with original units. The low end seems to stop waffling around and becomes tamed yet warm, levels can be compressed by needle-bending amounts with just a touch of extra richness, and a super magical sheen engulfs the top end. Everything glows and flows a little more and across the mix the AT-101 frequently turns the mix into a 'record'. You immediately realise that you have stopped gritting your teeth and started enjoying the music rather more. Time Constant 5, with its fairly slow auto-release, is great for just gently warming things in this manner. Crushing the drums with Time Constant 1 is always fun, while vocals sound luscious with a setting of 3 or 4, even with oodles of compression.

The initial unit was completed at the end of 2007 and since then has been extensively tested, most notably by producer Chris Potter during the making of the latest album by The Verve. He enjoyed it mainly on guitars — I similarly recall tracking almost every overdub on rock guitarist Bernard Butler's solo albums (co-incidentally briefly a member of The Verve) through the 670s at AIR and Konk Studios. Those were on analogue tape, but even more so in the digital DAW era, there are few overdubs on which you wouldn't want a dollop of this magic. A good Fairchild, and indeed the AT-101, imparts a fullsome warmth — like you might experience with good vinyl records and a well-adjusted, top-class playback system.

Of course, news that 6386 tubes are being manufactured again will be comforting to 670 owners, but you would still arguably be better off with this recreation with all the aforementioned improvements over the original, and the reassuring thought that all components are new and will have many years of life. The thoroughly engineered AT-101 is something to truly impress knowledgeable clients. It is a remarkable achievement. And it is even available with five different front panel colours. Decisions, decisions... ■

PROS

The best attempt to date to recreate the holy grail of compression; lives up to its promise of sonic excellence; should be rather more reliable than a 670; stereo link.

CONS

Expensive (UK£11,500 + VAT) — understandably; very large and heavy; efficient cooling required; no Lat/Vert mode.

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