



EMI (to Joe Meek's specification) and was based on the REDD models used at Abbey Road. Vic modified the EQ section of the desk to incorporate a presence boost that mimicked the sound of the NAB response curve; this particular curve can be found at position 2 (medium) on The Freebird's Presence Boost section.

Bird of paradise?

The Freebird is a 4U, half-rack design that can be augmented by another unit to form the basis of a modular system. Vic informs us that a similar-size unit – the Nightingale, comprising two mic preamps with a single channel of compression – will be available later this year. Each channel features a gain pot for level matching and indented pots for Top, Mid Cut and Bass. The Top and Bass sections feature Baxandall-type shelving EQ curves, providing 14dB boost and 16dB cut of top end, plus 11dB bass boost/cut.

Both of these sections offer two EQ centre points – the top frequencies are selectable via a toggle switch at 9kHz or 15kHz, the bottom at 50Hz or 100Hz. The Mid Cut is centred on 700Hz and is useful for eliminating congestion, both on single sources and in the context of a multitrack recording.

Thermionic Culture

The Freebird



Thermionic Culture's Freebird is a unique three-channel valve EQ – but is it first among equalisers? **John Pickford** finds out.

Thermionic Culture

Manufacturer **Freebird**

Price **£2,394**

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Thermionic Culture has been in business for some 12 years and, as you might deduce from the name, deals exclusively in valve-driven equipment. The Freebird is the latest in an impressive line-up of hardware that includes compressors, microphone preamps and even a state-of-the-art distortion unit. As a three-channel EQ The Freebird is unique, the thinking behind it being that when used as a stereo mix buss equaliser, there is still a channel of EQ available for, say, a lead vocal.

Although The Freebird is a brand-new unit, its origins can be traced back more than half a century, to when designer Vic Keary joined Lansdown Studios in London, arriving just after the legendary Joe Meek had left to set up his own highly eccentric recording operation. Vic told us that he started out at Lansdown as a disc cutter, and it

Key Features

- 2 frequency options on both high and low shelves
- Unique Presence Boost circuit
- Musical Mid Cut control
- Gain control for precise level matching

Like all Thermionic Culture products, The Freebird is very well-built and laid-out

was here that he discovered that by switching from the UK standard CCIR EQ response curve to the American NAB system he could achieve a brighter sound with more presence. The mixing desk at Lansdown had been made by

The Presence section features five options of active mid-lift based around Vic Keary's original 1960 design. The low (L) position gives +3dB at 1kHz; the mid (M) setting +4dB at 1.4kHz; the high (H) settings offer 3, 5 or 8dB of boost at 3kHz and above. At the bottom of each channel is a high-pass filter (HPF) allowing filtering at 65Hz or 25Hz and a Bypass switch that removes all circuits from the signal path. The rear panel accommodates transformer-balanced XLR inputs that accept either balanced or unbalanced sources and unbalanced XLR outputs (one set for each channel). Here can also be found the IEC mains input, underneath which is an on/off switch.

Like all Thermionic Culture products, The Freebird is very well-built and laid-out. The white-on-black inscriptions are extremely legible (useful in dimly lit control rooms) and all→



The rear-panel XLR inputs accept both balanced or unbalanced sources.

→ of the pots are easily accessible and lovely to use. There's nothing fiddly or rickety about this unit.

We began our listening tests by inserting one channel of The Freebird across a previously recorded male vocal. This had been captured with our Neumann U67 valve condenser microphone plugged directly into Thermionic Culture's Earlybird mic preamp and gently compressed by our beloved Phoenix compressor, so microphone aside this was a complete Thermionic Culture recording chain. We were eager to hear how the Presence Boost sounded and tried all five settings, finding that the medium setting – providing +4dB at 1.4kHz – suited this particular close-mic'd vocal best of all, sounding up-front, clear and intimate. Selecting 15kHz at the top end and boosting by a few dB added some air to the sound and a certain sweetness that complemented the performance perfectly.

Bird feet feelings

Moving on to drums, we utilised all three channels of The Freebird: one for the kick drum and the remaining two on a stereo sub-mix of the entire kit. First we EQ'd the kick drum by dialling in some mid-cut, which effectively eliminated a slight boxiness, then switched in the H+ Presence control (+5dB at 3kHz and above) to emphasise the click of the beater and give definition to the sound. A mild boost at 100Hz added a bit of welly down below. Finally, we cut some extreme top at 15kHz to round off the sound nicely.

With this done, a stereo mix of the kit was created with a healthy dose of compression, which we fed into the remaining two channels of The Freebird. At this point the kit was already sounding pretty good, but it lacked a little top-end sparkle. To fix this we selected 9kHz and found that giving a generous boost of

around 8–10dB really brought the sound to life. Cymbals shimmered and the snare drum in particular sounded very crisp. We experimented with some Presence Boost and although none of the settings sounded bad, we decided to leave this circuit switched out, just adding a gentle lift at 100Hz to bring a lovely cohesiveness to the sound as well as a bit of low-end heft.

Guitars and keyboards also benefited from the sweet sound of The Freebird and we were able to create some gorgeous tones using both the Presence Boost and Mid Cut controls. The Presence Boost, particularly at higher settings, added bite to electric guitars without ever sounding harsh, making it easy to place them in the final

/// We couldn't help but be impressed by The Freebird, both as a creative and corrective equalizer ///

mix. Attenuating the high end at 15kHz helped here as well. An acoustic guitar that had been clogging up the mix was tamed by making use of a combination of Mid Cut and the first high Presence Boost, then sweetened with around 3dB boost at 15kHz. Some bottom end was cut as well by rolling off a couple of dB at 100Hz and switching in the high-pass filter set to 65Hz. Job done!

Sweet bird of truth

For our final test we dug out an old stereo mix of a rock track that had always sounded a bit flat and lifeless but had subsequently been sweetened considerably at the mastering stage. We took the unmastered tape and fed it through two of The Freebird's channels, adding a touch of super-top end and

Measuring Up

There aren't any other three-channel valve EQs on the market, but TL Audio's EQ-2 (£1,099) is a four-band stereo parametric equaliser that offers peak/shelf switching on high and low frequencies as well as providing two mic preamps and two instrument inputs. Cartec's EQP-1A (£1,992) is a single-channel, all-valve unit that is a faithful re-creation of the classic Pultec EQ launched in the early 1950s.



some low-end punch at 100Hz. This alone was a big improvement, but switching in the Presence Boost at its medium setting and reducing some muddiness by cutting a couple of dB at 700Hz really did the trick. Comparing our newly mastered mix with the one carried out at a dedicated professional mastering suite was interesting. Although the two presentations were

not identical, both were an improvement over the flat tape and we felt that in some respects – midrange clarity and detail especially – our new master sounded better than the previously mastered version.

On song

We couldn't help but be impressed by The Freebird, both as a creative and corrective equalizer. It's very hard to make it sound bad on any source – unlike the EQ sections of many budget mixing desks – and it's possible to apply liberal amounts of additive EQ without ever sounding harsh or artificial. Thermionic Culture has done it again: the Freebird is a wonderfully musical and versatile equaliser that is intuitive to use and gorgeous to hear. **MTM**

Method Spot

When sending an audio signal to a reverb chamber or a mechanical reverb unit such as a plate or a spring, it can be useful to roll off some top and bottom end. For a great reverb sound on vocals select 9kHz up top and 100Hz down below and cut heavily. Experiment with the Mid Cut and Presence Boost to create a thin sound, then apply a short pre-delay before sending the signal to reverb. This helps to maintain definition on the vocal and avoids creating an unintelligible wash of sound.



The Freebird can be augmented by another unit if you want to set up a modular system.

MTM Verdict

WHY BUY
 + Gorgeous sound
 + Excellent build and layout
 + Intuitive to use

WALK ON BY
 - No stereo linking option

The Freebird is a welcome addition to Thermionic Culture's impressive arsenal. It is a versatile and flexible EQ that sounds irrepressibly musical on any signal you feed into it. Vic Keary's Presence Boost circuit is a wonderful thing and worth the asking price on its own.

