Tube-Tech RM8

Modularity in the vertical outboard sense has been making a comeback but you'll have to look long and hard to find any other modules that are all-valve ...or blue. GEORGE SHILLING is lucky enough to get to review this exciting little package.

Danish audio expert John Petersen started building Tube-Tech valve equipment in the mid-1980s when Pultec EQs were becoming sought after by producers, engineers and studios; his first creation was an almost exact replica of the EQP-1A, and he still offers a similar model in the catalogue. Other models ensued which were original designs, but with the same philosophy of using only tubes in the audio path, transformers for input and output, simple controls and circuitry, and bullet-proof build. The range has expanded to a number of superbly crafted EQs, compressors and preamplifiers, with recent models embracing and setting trends with multiband compression and external summing for DAW users. The RM8 provides a customisable modular system featuring similar designs to the best known full size Tube-Tech units.

There are three different modules available for the RM8: a mic/DI preamp, a compressor, and of course a Pultec-style EQ, all including the same valve circuitry of the larger Tube-Tech units. The RM8 itself is a power supply and host rack for the modules. This is described as a Table Top unit, which perhaps makes it sound like a vase of flowers. The RM8 comes with chunky rubber feet, but it will apparently rack-mount, with predrilled holes at the sides to add rack ears. I would imagine that rear bracing would be essential in this case, as the review configuration was rather weighty. Generous venting is provided on the top and bottom so in a rack some extra space would probably be needed above and below.

Like similar units from API and SSL, the case includes audio connections on the reverse, with the modules themselves sliding into multipin connections (DB25s are used) at the rear. Modules are then secured with screws. The RM8 provides +270V, +48V, +15V, -15V and +12V rails to satisfy the various requirements of the modules, and LEDs for each of these rails light on the front panel to ensure their health. With the high internal voltage required for the thermionics it is obviously rather essential to blank any unused slots. Eight slots are provided, and the review model included a pair of each module along with a pair of blanking panels.

On the rear are logically arranged XLRs for audio input and output to each model. As a bonus, there are also a pair of (Tascam wired) DB25 connectors for analogue connections, which might be handy for quicker installation if the unit is likely to be moved around. Power comes in on an IEC with a voltage selector, and illuminating power rocker, although I'm not sure who will see the illumination at the back. Cramming the technology used in such enormous models as the EQ-1A(M) and CL-1B into small modular spaces seems remarkable. However, the RM8 is a deep box, which equates to roughly the width of a standard 19-inch 1u, while the module width is a few millimetres wider than the height of a 1u box. Even so, this is quite a feat, and some clever design techniques have been used to cram everything in. The circuit boards run vertically along the left side of each module, with the tubes' sockets jutting out to enable conventional vertical mounting of the valves themselves.

The modules feature sturdy metal toggle switches and mini bakelite-style knobs that are scaled down versions of those found on the larger Tube-Tech hardware. They are delightful and easy to use.

The PM-1A mic preamp is based on the large-format MP-1A. This mic preamp sounds neutral but with a hint of valve warmth, and the higher impedance of one of the attenuators is said to make this unit more transparent than its larger sibling. It manages to sound rich, refined and remarkably detailed without seeming in any way coloured or hyped, processing microphone signals without fuss or bother. While the full size unit features gain stepped in 5dB increments, the module uses two knobs that step in 10dB and 2dB increments, enabling finer control. And the 20dB Pad is still provided. A maximum gain of 70dB is therefore indicated, and this is provided more cleanly than one might expect of a valve unit; depending on the mic and signal, you might hear a little hiss at full tilt. Furthermore, the module offers three different impedance settings whereas the MP-1A is fixed at 1200ohms. The alternatives can theoretically provide some different colours, but I often found little advantage in varying this, unless slight woolliness is what you need! Even with an old school ribbon mic, the differences were no great revelation.

Although the gains are switched, these and the impedance settings can thankfully be changed with no audible clicks and pops. But the Phase reverse toggle makes a loud blatt, and the low cut clicks slightly when changed between Off, 20Hz and 40Hz. These extremely low corner frequencies are very handy for getting rid of stuff you certainly won't want in most scenarios. On the front panel is a jack socket for DI input (input is switched automatically with a jack inserted), ever more important in these days of guitar amp plug-ins and re-amping. This sounds particularly rich and glowing with single coil guitars, and such is the quality of this circuit that a DI signal can be enjoyable without the need for any further processing. And it is rock solid on the low end with a bass guitar. The only front panel feedback is a LED for Overload — I'd have liked a warning of the presence of Phantom Power, and the other irritation common with many outboard mic preamps is the lack of a Mute switch. At least on some units you can flip to Line input, but here there is nothing.

The Compressor module's controls reflect the larger format CL-1B unit, and again something of a miracle has been performed to cram similar circuitry into a module and a LED meter, rather than the larger unit's VU, shows Gain Reduction or Output Level. The opto-coupler is of a different type, but otherwise the circuitry is similar.

A toggle enables linking using one of two Link Buses, so if the rack is fully loaded with eight of these modules, you could in theory run linked 5.1 surround compression alongside a stereo linked pair. The rear of the RM8 includes jack sockets for the link bus, so multiple units could link even more channels. In linked mode, Threshold and Ratio remain active on all linked channels, so to make one Master it is necessary to turn the Threshold fully up on the Slaves.

Despite expectations of optical and valve compression, this compressor is fairly aggressive, with

a minimum ratio setting of 2:1. Even with an indicated 1dB of gain reduction, the effect is usually quite audible, and things can get mushy with programme material, although the character is never grainy, as with a vari-mu type — it's closer to a Neve 33609 than a Fairchild 670. In Manual mode this compressor is happier with individual instruments than across a mix, (although I did have some success with the latter in this mode with careful setting up), and it works a treat for aggressive pop or rock vocals. The ranges of the Attack and Release are quite remarkable, with 0.5 to 300mS and 0.05 to 10S respectively. Fixed mode sets Attack to a fast setting, and Release to a fairly fast setting. The Fixed/Man setting engages an auto-release function that is more suited to programme, and this reduces pumping. The explanation of the exact workings of this are quite complex, with a two-stage release, the Release knob controlling the second part of the decay. Attack is always set fast, and the Attack knob changes function to set the delay before the Release knob setting kicks in. The operation of this mode has often confused users, and takes some getting used to, but once the concepts are understood, a little experimentation soon makes sense of it all.

The LED metering is something of a disadvantage, as reference markings aren't easily read, the scaling is quite coarse, and all gain reduction is green, so all you see at a glance is fluttering green light, which can be rather more difficult to interpret than a VU. This is really the only downside to the modular format. The meter can also be flipped to show Output, when yellow and green segments come into play, and the red overload at the top will always come on in the event of excess level.

The EQ follows the traditional Pultec layout, albeit crammed in a vertical arrangement. No corners have been cut feature-wise; this is exactly the same circuit as the PE-1C, the only difference being a different make of rotary switch. There is the familiar High Cut at 5, 10 or 20kHz; 10 frequencies are available for High Boost from 1kHz up to 16kHz, with a continuous Narrow/Broad knob. The Low frequency selector features 20, 30, 60 and 100Hz and works in tandem with the customary Boost and Cut knobs, turning both up is a favourite trick of many engineers wanting an overshoot/undershoot at the turnover frequency. And plenty of warmth is available here. The highs are extremely refined, a judicious boost can be like removing a blanket from the speakers! Pultecs have been a favourite type of EQ with engineers for many years, and this new version changes nothing except adding the convenience of the modular system.

As with full size Tube-Tech units, all continuous knobs are undamped, while switched selectors are quite stiff. The build is undoubtedly very good, although on arrival I needed to re-seat one of the modules. The thing that was most disconcerting was obtaining such glorious fidelity and big sound from such small knobs and front panels. But this is something you can quickly become accustomed to, and there's very little not to love. The only other tube-based modular system I have encountered was the Inward Connections Vac-Rac, some 11 years ago. This was a slightly different concept, and it seems it is no longer manufactured, so Tube-Tech has something utterly unique and highly desirable. The design philosophy was to 'keep it simple', and to that should perhaps be added 'but sonically refined'. ■

PROS Superb quality modules in a convenient package; cheaper than the full size equivalents, but including virtually all of their benefits; ideal for the mobile producer.

CONS PM-1A lacks phantom power indicator light and mute switch, and I'd have liked more metering than the single Overload indicator.

EXTRAS Prices (all + VAT)
RM8 Table Top Frame £1,385
CM 1A compressor module £1,015
EM 1A equaliser module £1,015
PM 1A mic preamp module £1,015

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