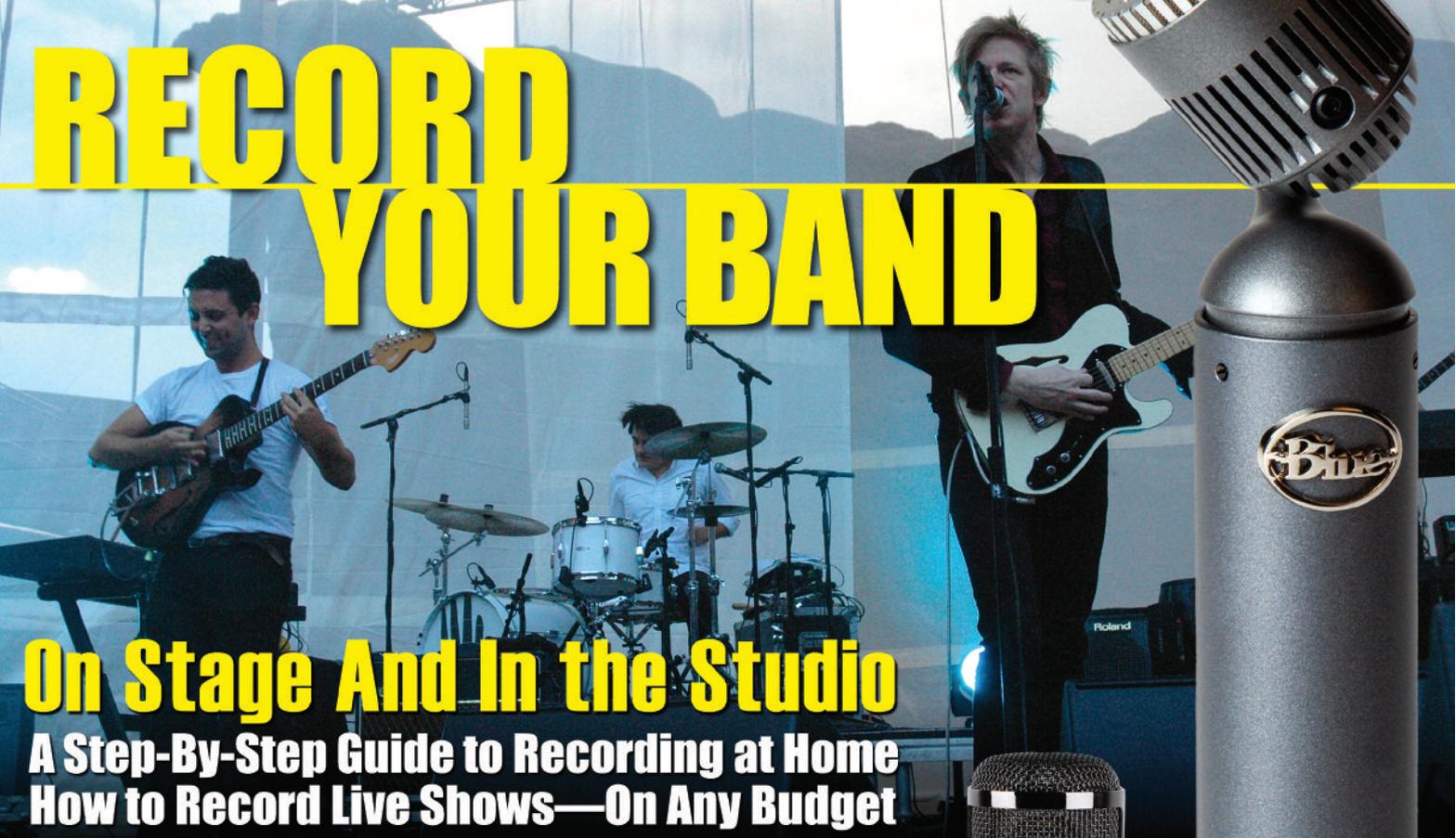


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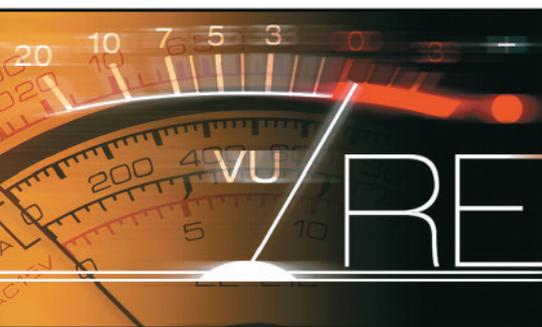
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REVIEW

BY PAUL VNUK JR.

Q2 Audio ADR Compex F760X-RS

—This reissue of a famed multieffects processor delivers impressive performance



Today we are looking at a hardware reissue of the classic Compex F760X-RS... but just what is a Compex F760X-RS? It may be one of the first multi-processors ever built, with a compressor, expander/gate, and a limiting circuit, all in one unit. Such a thing is commonplace now, but not so much in the 1960s.

If the name still escapes you, just know that its compressor—actually an early variant that was built into the recording console—was, along with two microphones, a stairwell and the drumming skills of John Henry Bonham, the single biggest contributing factor to the drum groove found on Led Zeppelin's classic "When The Levee Breaks".

A comp(l)ex bit-o-Brit history

The compressor that would become known as the Compex was developed, designed, and built in England in the late 1960s by ADR (Audio Design Recording). Like many early audio processors, it was also supplied as an add-in component for Helios consoles.

Following that were a myriad of variations until about 1973, when the company essentially landed on the version we are looking at today. Note that ADR still exists in Great Britain as Audio Design Reading, but they have since moved on from the classic Compex designs.

Q2 to the rescue

Luckily for us, Tim Mead and his company Q2 Audio have worked out a deal with ADR to reproduce modern versions of this classic for today's market. By way of pedigree, Tim is the lead technician for US high-end audio superstore Vintage King Audio. While there, Tim became proficient at refurbishing and rebuilding classic Compex boxes and he

eventually decided to build his own. While Q2 is his own separate company, he still works out of the Vintage King Detroit complex, and Vintage King is his US distributor.

Getting to know the F760X-RS

Unlike most simple vintage compressors of yesteryear, this beast has a staggering 20 controls on its faceplate, consisting of 8 knobs and 12 toggle switches. To be fair, it is a 2-channel unit that, as mentioned, consists of a compressor section, an expander/gate, and a limiter.

It can operate as a stereo device or as two mono units. While early units came in a 3U rackmount box with a drastically different layout, eventually the design was refined into a 2U version, a size replicated on the Q2 unit. The steel enclosure is finished in black, and all of the unit's knobs and sections are color coded in red, blue, green, and yellow with additional white accents.

The F760X-RS is a solid-state FET device and all three sections make use of the same FET gain circuit. Here's a quick rundown of what's new vs. old:

~ The original units made use of now discontinued Sifam meters, so new equal-quality replacements were needed;

~ The original units had separate A-B-C cards whereas the new unit features a shared PCB board across all sections;

~ The original open-frame pots have been replaced by conductive plastic versions (the rotary switches are Swiss-made ELMA switches, as on vintage units);

~ The ability of the unit to hold calibration has been greatly improved by upgrading the voltage references.

Additionally Tim told me via email that "Very little has changed circuit-wise. The audio path utilizes the same circuitry and the same capacitors (Phillips O21 series - Blue

Axials), the sidechain is done in thin film SMD (resistors), and the transistors, electrolytics and trimmers, etc., are still through-hole types." Speaking of that sidechain, this addition is the only liberty Tim took with the unit to "modernize" it; we will look closer at this feature in a moment.

Lastly, note that this version of the F760X-RS is transformerless, but just as there were transformer-equipped variants in the 1970's, Q2 does offer an optional Jensen transformer upgrade.

Common to both channels is a set of large stereo input and output knobs. These drive the unit in conjunction with an additional input and output on each channel. Think of the stereo ins and outs as coarse gain, and each individual channel as fine tuning.

Each channel has its own gain reduction meter, and the threshold circuit of each channel's compressor and expander/gate can be linked for stereo use. Interestingly the peak limiter section remains independent and unlinked.

On the rear of the unit are unbalanced (yes, you read correctly) XLR ins and outs for each channel as well as a TRS 1/4" sidechain access (Tip return / Ring send / Sleeve ground). Why is the unit unbalanced? For authenticity, since the original was. The power supply is internal and uses a modern 3-prong IEC jack.

The unit follows a bright and easy-to-learn color scheme. The I/O knobs are black, release knobs are green, threshold is yellow, range is red, and ratio is blue. The Compressor section's labels are orangish-red, the Expander's are green, and everything else is written in white.

The modules, feature by feature

The Compressor section has stepped rotary controls for Threshold (-20 to 0 in 2 dB

steps), Ratio (1:1, 2:1, 3:1, 5:1, 10:1, 20:1), and Release (25 ms to 3 sec + Auto). The Attack time is set by a 3-position switch (250 μ s, 2.5 ms, 25 ms). It's a soft-knee circuit.

Each channel has a master bypass. The System Out bypasses all of the dynamics sections but not the line amp; the Expander is still fed signal and the meters may move, but there is no audible effect. No compression happens at a 1:1 ratio setting. ADR and Q2 both recommend setting the compressor to 1:1 when setting up the initial signal levels.

The Expander/Gate section offers up to 20 dB of noise reduction and also has 3 rotary controls: Release (Fast to Slow), Threshold (Hi to Lo) and Range (-20 dB to 0), plus a 3-position Expander Attack toggle (2 ms, 40 ms and 20 μ s). The ratio is fixed at 1:2, and this section can be switched between expander or gate (1:20) modes or bypassed.

The Peak Limiter section consists of a single 3-position toggle switch with settings of On, Off or Pre-Emphasis mode. Pre-Emphasis was used in the days of radio; it boosts the high end prior to the limiter via an internal sidechain circuit. There is not room here to explain the wheres and whys of pre-emphasis, but think of it as the opposite of modern built-in sidechaining where a low-frequency signal passes through the threshold without triggering it. Pre-Emphasis works on the high end and clamps down on high

frequency signals more aggressively; this makes it very useful as a makeshift de-esser.

The Peak Limiter is fixed at 250 μ s attack, 250 ms release, and a 100:1 ratio. Each channel also has its own red indicator light to let you know when the limiter is kicking in.

Lastly the new sidechain feature allows the unit to emulate some of the tips and tricks of another ADR device, the Vocal Stressor, by using an external EQ to trigger dynamics control. There is an internal jumper that switches the sidechain between the compressor or gate sections. So in addition to standard sidechain compression, you can also achieve triggered gate effects, ducking, and more.

In use

The most complex part of the Compex is its initial setup due to its dual I/O stage. For best results, a classic setup technique is to set the stereo input and output to 3 o'clock and the compressor's ratio to 1:1 (i.e. no compression). Once the input signal and bypassed signal are at equal levels, you can go to town with further tweaks.

Starting with the obvious, this box is a monster drum compressor, be it room mics, the drum bus, or just the kick and snare. 75% of the mixes I have done with the F760X-RS have had it living on the drum bus, where it is fast, punchy, and vibey. I would call it lightning fast, yet thick and

chewy at the same time. It sounds best when you dig in deep with drum tracks.

It's also a great choice for lead vocals at more conservative settings. However, the instrument application that really surprised me was acoustic guitar, where we tracked though it for added punch with quite fast yet liberal compression settings.

A real magic found in the box is the 2-stage Auto Release setting, which may be one of the best auto release circuits out there... so much so that many other manufacturers just take this release circuit and add it to their compressors! It's quick, yet gentle, smooth, and very natural.

Bottom line

It's great to see this classic beast resurrected and it would be great to see it get its due alongside the other obvious classic comps and limiters. Tim has done a stellar job of bringing this box into the present day, and it offers a lot of bang for the buck. It's not cheap, but remember it's stereo and has three distinct yet parallel functions... before you even consider its amazing sound! ➤

Price: \$2750

More from: Q2 Audio, q2audio.com; dist. by M-1 Distribution, Audio Design Reading (UK only), and in the USA by Vintage King Audio, vintageking.com