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Rupert Neve Designs Portico Series 5043 Duo Comp By Garrett Haines

The 5043 Duo Comp is one of the newest additions to the Rupert Neve Designs Portico Series. The much anticipated unit adds a compressor to the line-up and finally provides an answer regarding the mysterious 'TO BUSS' connections found on many other Portico modules. Like its siblings, the Duo Comp is a half rack width, two-channel device decorated in RND's black, tan, and brick-red motif. A vertical mounted version is also available.

Rotary knobs control common parameters such as attack, release, ratio, and gain. Five other features: bypass, feed-type, link, buss, and meter select, are toggled via push-buttons. When depressed, they illuminate, providing a clear sign that the feature is enabled. A three-color LED meter spans the top of each channel. The Rupert Neve Designs's web site provides ample information for those interested in additional specification detail. But a few details are worth mentioning that set the 5043 apart from other compressors on the market.

NICE TOUCHES

Fine adjustment of compression ratios can be important in many applications. The 5043 provides significant control, especially at smaller ratios. Set fully counter-clockwise the 5043's lowest ratio is 1.1:1. At 10PM the unit increases to 2:1. And at 2PM it reaches 3:1. Thus, over 50% of the control is dedicated to fine tuning lower ratios. In an era of rampant over compression this is a welcome feature. Of course, the 5043 can do heavier squashing: 8:1 compression can be had at 3PM on the dial. And twisting to 5PM reaches the unit's limit feature, which is a reported 40:1.

As noted, the metering is provided in the form of two LED bars that span the top of the unit. At first glance, I thought there was a meter per channel, however, the LEDs work as a team, monitoring one channel at a time. The left meter (Channel A) measures input level, while the right meter (B side) displays gain reduction. A selector button allows you to

pick which channel you are monitoring. The tracking guys at our studio did not like this design; they preferred to have each LED dedicated to its own channel while using the toggle switch to flip between reduction and output. But I flat out love the metering implementation. It allows me to view the effect from one end of the chain to another without switching around. Since many will use the 5043 in a tracking situation (e.g. one track at a time) this set-up appears more conducive to getting proper levels. Good call, RND.

The Feed Option provides a choice between Feed Forward or Feed Back compression. This is a powerful, but uncommon feature. Most compressors are designed to be one type or the other (notable exceptions are the API 225 module and 2500 bus compressor, which also offer choice of back or forward in the same device). In simplistic terms, the feed option refers to the method of providing control voltages to the compressor's detection circuit. Feed Forward designs take the control voltage directly from the input, and are generally more suited for fast limiting work. Conversely, Feed Back compressors take some of their control voltage from the output, which is often interpreted as more musical sounding. In theory, either design can be used for any application. However a deal of practice is required as threshold, attack, and release affect the sound differently depending on the feed structure. For end users, this choice means the flexibility of the 5043 is essentially doubled when compared to most other compressors. (See sidebar for more information and discussion of Feed Types).

Those familiar with the dual mic preamps (5012 and 5032) and true tape emulator (5042) may recall a 'TO BUS' output feature. Until now, the exact use was reserved for "future functionality." The first payoff from that design feature arrived with the 5043: it can XLR inputs AND the buss feeds from said Portico modules. This affords new routing options, especially for those with fixed rack installations. Users could maintain a dedicated patch into the 5043 that is only activated as desired.

IN USE

We tried the 5043 for mastering, tracking, and mix bus compression. In a mastering context I appreciated the significant control afforded over the ratio values. Settings from 1.5:1 to 2:1 in FB mode were smooth and often reminded me of the Manley Vari-Mu, which has an uncanny ability

to glue a final mix in place. Adding the unit to the signal chain immediately imparted a subtle Neve quality to the sound – colored but in a good way. My guess is the output transformers play a considerable roll in this regard. However, the controls are packed rather close to one another, and the full-range knobs make recalling settings challenging. Overall she's a fair choice for mastering (sound-wise), but not necessarily a first-call unit (recall-wise).

As a tracking compressor the 5043 was pleasing on many sources. Mild settings added more silk and cream to a fretless bass line, while rougher settings contributed to the smack and punch of a slapped bass part. Despite its solid-state heritage, this unit gives tube limiters a run for their money for bass tracking. It also took a good sounding snare track (captured with an SM57 through a Daking Mic-Pre/Eq) and took it up a level in terms of pop and woody-sustain. Another favorite use was on male and female vocals. Feeling adventurous, I began to push the ratio towards 8:1 on an aggressive rock singer. After dialing the appropriate attack, release, and threshold, the singer retained his dynamics while the overall track settled in the mix nicely. Our only issue came in low-light situations. At times it can be hard to see what parameter you're adjusting. So have a flashlight ready or memorize the panel because the sound is worth the slight inconvenience.

At the last minute we tried the 5043 for a multi-bus compression mix down. Andrew Morse, one of our lead tracking guys, put the Neve as one of the main drum compressors. I told him to smash the daylights out of the track (a great way to test a compressor is to purposely abuse the settings). As soon as he hit play we all knew what this baby was born to do. This is one of THE best drum bus compressors. There are others, and they can work well, too, but this is a monster. What did the Neve do? Well, think about your favorite drum sound. Picture it in your mind: hard hitting, but dynamic, full but tight, silky cymbals, but not harsh hi-hats. It's all that. The other thing you're hearing? Yeah, that's the sound of you spending \$1,800 on a 5043... Thinking we hit some holy grail of multi-bus madness we tried the 5043 on other sources. I have to say, we never did dial in anything above average for a distorted guitar bus. Maybe it was the particular bus, but we never got the mids to sit where we wanted them to. The unit was solid on bass and vocal busses, and depending on your needs it could be the ticket. But you'll

probably have it on your drum bus anyway.

APPLICATION TIPS

Effective compressor use is both science and art. Because of numerous design choices some units can be better suited for some jobs than others. In general, the 5043 is a capable all-purpose device. But after using it for a while a few key applications stand out.

APPLICATION 1: The Smooth Vocal

Maybe it was the small size of the unit or the focus on low compression ratios, but the first thing I wanted to do with the 5043 was loop the output of Channel A back into Channel B and use this puppy in series. (I thought my idea was cool, too. But later I noticed the manual explicitly talks about doing this type of composite operation. So I guess I'm still a regular geek.) Our solder-monster Dave wired me a 1 foot XLR that did the trick without making too much spaghetti.

For a crooning or smooth vocal choose FB compression. Set Channel A to a low ratio around 2:1 with a slow attack and a medium release. Then, dial a ratio around 8:1 on Channel B. The resulting compression will be a smooth arc that gradually clamps down as a passage increases in volume. It's a very natural sound that is similar to an experienced engineer riding the fader during mix down. Often not "hearing" the compression is the best compression. APPLICATION 2: Taming the Novice Bass Player

Many new bass players have major volume jumps in their performance. This can be a result of a poor set up, pick-up alignment, and technique. For these tracks, choose FB and set up Channel A in a heavy compression/limiter mode. Select a high threshold. Think of this channel as the "over height" truck sign you see on tunnels and underpasses. You don't want that E string to boom over this point. Then, set Channel B to a medium ratio, say from 3:1 to 4:1, and use that to bring up the level of the D and G strings. While it won't make your weekend warrior into a Jaco Pastorius, it will go a long way to putting some control on the track.

APPLICATION 3: OUTPUT LIMITER

Just because an analog compressor has a 20:1 or higher ratio doesn't mean it's a good peak limiter. With a Feed Back topology some

peak voltages manage to get through to the output before the detector learns about them. Thus, it's too late once the compressor kicks in. If you're serious about using an analog device to protect downstream gear (e.g. a broadcast or live sound application), then choose Feed Forward and get ready to set up. Since the detector will "know" about peaks as soon as they hit the unit, the attack setting will be much more sensitive than you're used to using on FB compressors. You may find yourself setting it faster than necessary. Likewise, a release setting that may let up in an even manner might cause audible pumping in an FF design. Remember: most engineers have limited exposure to FF topologies. It will take some practice to get used to the unit's response. Some people might get frustrated and avoid using FF. Don't be one of them. You're throwing away half of your compressor! Instead, set-aside time to work on your technique. And don't forget the new power as an effects device FF can prove, as well. If you want "trash-drums" this can be your chance.

CONCLUSIONS

New owners of the 5043 will probably rip the thing out of the box and start using it right away. This is fine, and you will certainly obtain good sounds out with little effort. However, this is a feature-rich unit, and I encourage people to read the furnished manual (RTFM) and become acquainted with the power and flexibility this model offers.

My concerns with the unit are minor. It would be difficult to obtain spot-on recalls in a mastering situation with the full range pots. Also the combination of half-rack width and how cool the 5043 sounds in composite operation begs the consumer to want two (actually, I'm not sure this is a concern about the unit or my lack of budget).

While many covet vintage Neve gear, each Portico release diminishes my interest in the older units. The RND products combine decades of design refinements with modern production techniques -- not to mention significantly better component tolerances. These factors set the Portico range at the crossroads of Neve-sound and modern reliability. And that's a good place to take up residence.