



# TRACK

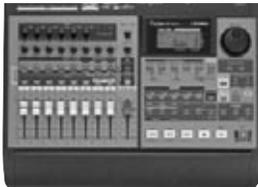
## ▶▶ NOTES

The INFO Source for Digital Recording

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summer

# NAMM New Products



VS-890  
Digital Studio Workstation



VS-840GX  
Digital Studio Workstation



DS-50A  
24-Bit Digital Reference Monitor



RSM-90  
Studio Monitor

Held each year in Nashville, the Summer NAMM show is widely known for its focus on guitar products. But this year, Roland decided to shake things up on the recording front with the introduction of two new V-Studios, new reference monitors, and an interactive jam disk called JamTracks™. So if you want to find out what's hot in the world of recording, read on...

### VS-890 Digital Studio Workstation

The VS-890 brings 8-track recording into the 21st century with pristine 24-bit converters for massive headroom and dynamic range. Standard V-Studio features include 128 Virtual Tracks, cut-and-paste digital editing, and amazing onboard effects including a Mastering Tool Kit and COSM Speaker Modeling. But there's also a new CD Writing Mode, which makes CD burning faster by skipping the image file process! Put simply, the VS-890 is the 8-track of the future.

### VS-840GX Digital Studio Workstation

The VS-840GX brings Roland's latest V-Studio technology to a more affordable price. You get an internal Zip250™ drive, COSM Speaker Modeling, 128 Virtual Tracks, onboard effects—including COSM Guitar and Bass amp models, a Bass Simulator, and more—and a new JamTracks disk with pre-recorded backing

tracks in nine musical styles. Talk about fun!

### JamTracks™

Bundled with every VS-840GX, JamTracks is a Zip250™ disk created to give guitar players a fun and interactive way to jam with talented studio musicians using their V-Studio. Perfect for playing along or composing, JamTracks contains multitrack backing arrangements in nine musical styles including Blues, R&B, Motown, Rock, Latin, Alternative, Country, and more. You can even take individual tracks, such as drums, and copy them for use in your own songs.

### DS-50A 24-bit Digital Reference Monitor

The DS-50A makes 24-bit digital reference monitoring more affordable than ever. Featuring a 50W bi-amp design with active crossover and 24-bit/96kHz digital input, these digital monitors eliminate the noise inherent in analog cabling while delivering ultra-flat response.

### RSM-90 Studio Monitor

The RSM-90 Studio Monitor is a two-way passive monitor based on Roland's acclaimed DS-90 speaker/cabinet design, with custom crossover circuitry and front-firing dual bass ports for phase-correct imaging and ultra-flat frequency response.



## 5 MINUTES

with Paul Pesco

*Paul Pesco is a New York-based studio guitarist and engineer/producer who has worked with artists ranging from Madonna and Jennifer Lopez to Omar Hakim and David Frank. He is also an avid VS-1680 user. Track Notes recently spoke with Paul about how he went from being a session guitar ace to engineering and co-producing an upcoming Hall & Oates album.*

TN: You're known primarily as a studio guitar player. How did you get into the recording and engineering side of music?

PP: I'd been playing guitar on a lot of records, and in the mid-'80s I started building my home studio... writing tracks, recording vocals, understanding what compression was. Every time I did a session I was taking notes. Fortunately, I've also worked with some of the greatest engineers—Chris and Tom Lord-Alge, Bob Rosa, Ray Bardani, Joe Blaney...

TN: What made you decide to get a V-Studio?

PP: I had been just sort of eyeing things and was hearing a lot about the VS-880. This was right when it came out. So I said, "I have to try it out." I was on the road with [folk singer] Joan Baez at that point, so I started working on demos with the VS-880. I already had some pretty fat front end... two API® preamps, some Focusrite® gear... and I was just finding that as long as I put quality in, I was getting quality out. And I've since graduated to the VS-1680.

Continued on page 2

TN: Now you're working with Hall & Oates. Tell us how this opportunity came about.

PP: I've been touring with them for about three and a half years now. I played [guitar] on their last album, *Marigold Sky*, which led me to co-writing and ultimately production work. I co-produced about half of the new record, and about six or seven songs [contain tracks] originally recorded on the 1680.

TN: How did you convince the band to record the demos on the VS-1680 versus in the studio?

PP: Daryl [Hall] has a studio upstate, but it was booked and we needed to work, so I said, "Listen, you don't really have to go to a studio to cut some demos. Let me just bring the 1680 and some of my other gear to your house and let's just see what happens." We wrote four songs in two days. Right after we were done, I printed him a CD and he went into the other room and threw it on. He was just floored by the quality. In fact, these tracks were coming out so good that we ended up transferring them to the other media at the studio for final use.

TN: So some of the final vocal tracks came from recordings made with the VS-1680?

PP: There's several songs where the lead vocal is the original version that we recorded in Daryl's basement in his project studio on the 1680. He's one of those singers where, you know, we'll write the song and then he gets into there and gets the feeling—and then he sings it and that's it. The first time is "the one." The thing is to be quick, and having the 1680 can be such a powerful tool.

TN: You probably found the 1680's digital editing tools very helpful while working on vocals...

PP: Definitely. I've done a lot of "comping" using Virtual Tracks. You know, like Track 1 is going to be the "lead vocal cutting track," and then we'd go to Virtual Track 2 and do six more versions, or whatever... you can do up to 16. What's great is you can try an edit, and then if it doesn't work, you've always got Undo.

TN: How did you overcome the obstacles of recording vocals at home, such as background noise?

PP: It's just a little bit of "old-school" knowledge... you know, using sound-absorbing material. At home, there's all sorts of ways of creating a little quiet spot... building a little tent with some blankets, using a certain amount of compression while recording, etc.

TN: And referencing your mixes was probably no easier. What's your secret to getting accurate mixes?

PP: What works for me is doing the "car test." I have a CD player in my car and that's sort of the universal listening space—more than 50% of the world listens to music in their car. So being able to

burn a CD [with the 1680] wherever I am is ultra-convenient. Plus, I recently got the DS-90A [24-bit Digital Reference Monitors], which sound incredible!

TN: How do you like the VS-1680's internal effects?

PP: I love the effects! I co-produced the new Lynch Mob album, which is George Lynch's group, the guitarist from Dokken. It's safe to say that 85-percent of the vocals were recorded on the 1680. On several songs I used the effects for distortion on the vocals and it came out incredible... such a powerful, clean-sounding effects palette.

TN: What about tracking guitar... did you record "direct" with the 1680's effects?

PP: I've done that, too. I love being able to just record the track and then later apply an effect to it, which is definitely very useful. In fact, on the new Hall & Oates record, I recorded most of the guitar parts into the 1680 using the internal effects and amp modeling.

TN: You've also been using the 1680 live on tour with Hall & Oates...

PP: One of the songs in the show is called "Man on a Mission." We generally use samplers and a sequencer for the loops and synthesized parts that the drummer plays with. For this one song, I decided that we'd try it with the 1680. I feed the drummer a click from the Aux send and he counts off the song to us. It works like a charm and we get the benefit of the live drums played with the looped drums.

TN: So the VS-1680 has really changed the way you work.

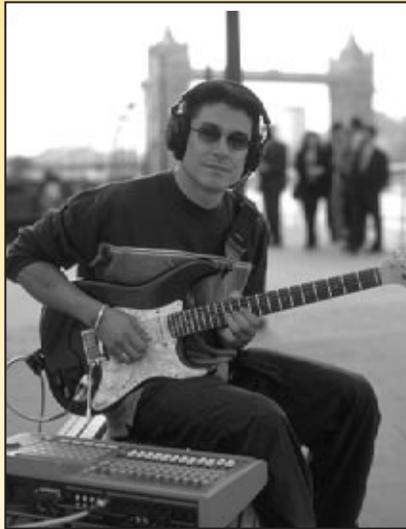
PP: It's changed my life [laughs]! It's funny, [since getting the 1680] I'm perceived in a different light, in that I'm able to create and deliver material anywhere. Daryl is totally sold. He loves it. He had me come down to the Bahamas where he has a beautiful house 60 feet from the beach, and here I am with my little 1680 studio set up.

TN: It sounds like the 1680 has been more conducive to inspiring creativity from you and the artists you work with.

PP: Yeah, what's great is you can be in your own surroundings and still have a powerful recording tool, rather than having to go to the studio and all of the sudden you're in this place where "Oh, this has to be perfect" and you're going out of your element. I'm looking forward to going to places like India where you can get

that inspiration and capture that sound there, rather than trying to recreate it in a controlled place.

For more information on Paul—including his bio, discography, and more—visit [www.allmusic.com](http://www.allmusic.com) and search under "Paul Pesco". And be sure to check out the new Hall & Oates album (presently untitled), scheduled for release in early 2001.



# Understanding the Mastering Tool Kit

Part two in a two-part series

by Vince LaDuca

In our last article on Understanding the Mastering Tool Kit, we covered the function of each effect block in this incredible algorithm. This time we'll go over the way you can use the Mastering Tool Kit (MTK) to make your mixdown as punchy as possible.

In order to use the MTK, you must first call up the algorithm using effect processor 1 or 3. There are 19 Preset Mastering Tool Kit Patches for you to choose from, P210-P228. Pick the one that best describes the song you are working on. If none really fit, go with "P213:Pop Mix", then go to the Mastering Room and insert the effect. As you record the mix of 16 tracks to the Mastering Room, the Mastering Tool Kit will be applied to the mixdown as it's recorded to Tracks 17 and 18. For those with a VS-890, you will need to bounce Tracks 1-6 to Tracks 7/8 and apply the Mastering Tool Kit to those tracks. If you're using a VS-880EX, you'll need to do an additional bounce to two free Virtual Tracks to add the Mastering Tool Kit.

Using the Presets is a fast, easy way to get a good sound, but for best results, you should do a little tweaking of the MTK's parameters. Refer to the last issue of *Track Notes* or the manual to get a description of each "block" in the MTK. A good Preset to use as a basis for your custom settings is "P210:Mixdown". Start by shutting off all possible blocks in the effect, then start working with each block as the signal flows through the effect. You can quickly shut off each block by calling up the effect Patch, cursor right to highlight each block, then turn the Time/Value dial counter-clockwise.

After shutting off all the blocks, press EDIT (F3). This should take you to the first block, the EQ. At this point, you can put the "bump and sizzle" into your track. Turn on the block (you'll find the switch at the top of the page) and try boosting the Lows and Highs a bit. Also try "dipping" the Lo-Mid a couple dB to remove the "boxy" midrange sound. I usually sweep the Lo-Mid frequency somewhere between 500 and 800Hz to find the exact point. Here's a tip: if there is a frequency that needs to be reduced, but you're not sure exactly where it is, try boosting the EQ band, then sweeping the frequency. The frequency that irritates you the most is probably the one

that needs to be eventually "dipped". Make sure to use the Total Bypass button (F5) and each block's On/Off switch so you can compare the unprocessed audio to the "mastered" audio as you work. Don't just assume, but compare!

Using the F2 button, move to the next block, which is the Bass Cut. You might not hear what this is doing, but just turn it on and set it for around 25Hz. This will eliminate any low unheard frequencies that could muddy up your final mix.

The next block is the Enhancer, and it's really a taste thing. Try it out on your song by turning it on, dialing in some Sensitivity and sweeping the Frequency. On this kind of effect, a little goes a long way, so be conservative with the Sensitivity and Mix Level settings—unless you're trying to make some new kind of sound.

The Input block in this Preset is pretty much set except for the InputG (input gain) going into the rest of the MTK. Adjust the input gain so the level in the "FX In" meter is averaging around "-4". You won't hear any change in the sound if you change the split points until you engage the expander and/or compressor.

Moving down the MTK chain, we come to the Expander. It will keep the intro and outro as clean as possible by silencing anything below the threshold. This effect also works great on "open" sounding songs like ballads by increasing the dynamic range of music, giving it more punch. If you started with Preset P210, just turning on the effect block is good enough. If you hear the expander clipping the very beginning of your song, slightly drop the threshold for each band—starting with the highs—until the clipping goes away.

Now we get to the heart of the MTK, the multi-band Compressor. If you chose Preset P210, just turn on the compressor block and look to the gain reduction meters for each frequency band. The objective is to have the gain reduction meters registering

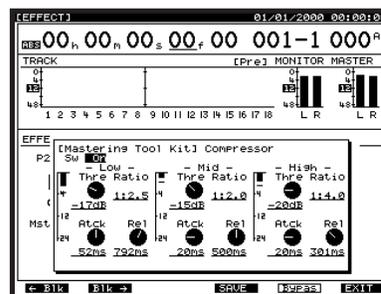
on the peaks of each band, then return to "0" at any other time. If they don't, try adjusting the threshold of each band until you get the desired readings. You can also experiment with threshold and ratio to obtain a certain kind of compressed sound found in some dance music, or if you're trying to go for that Phil Spector "Wall of Sound." Remember that it's easy to squeeze all the life from your music with this effect, so use it with caution and compare your settings to the unprocessed signal as you make your adjustments.

After we've treated each of the three bands, we need to recombine them. This is the job of the Mixer. You can think of this block as the final 3-band EQ after compression. Use this to compensate for any level reduction caused by the compressor for each band.

If you've done any digital recording, you know "0" means "0" and there is no going past it without distortion. Lucky for you, the MTK has a Limiter to catch any stray peaks. Turn it on, and set the threshold for "0" so it will only limit the signal if it hits close to "the top." Also, drop the release all the way down to 50ms so the limiter "lets go" as quickly as possible. The default attack of 2ms should be fine.

The end of the road is near: the Output block. Soft clip should be on to catch anything the limiter could not control. If you're burning a CD or recording the output of your V-Studio to a 16-bit DAT, set the dither to 16-bit. This will keep your music smooth as it goes from music to silence and help keep the low-level sections of your song from getting "grainy." Use the level control to give a final boost to the level if needed. If all the other blocks are set correctly, you shouldn't need to do this, but you never know.

See, mastering isn't the black magic you thought—unless you're using something other than a Roland V-Studio!



Multi-Band Compressor



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**In This Issue:**

Summer NAMM Products .....	1
5 Minutes with... ..	1
Tips 'n Tricks .....	Special Insert
Square One .....	3
VS-1880 Demo Video .....	4

## New VS-1880 Demo Video!

If you're in the market for a new digital studio, or thinking about stepping up from your current hard disk recorder, you owe it to yourself to check out the new VS-1880 Demo Video.

The VS-1880 Digital Studio Workstation is Roland's flagship hard disk recorder, and it's also the first to break the 16-track barrier. This video is your guide to taking advantage of the 1880's true 18-track playback and mind-blowing 288 Virtual Tracks. And the sound? In a word, it's "amazing," thanks to 24-bit A/D-D/A converters.

In this video, you'll also learn how easy it is to burn your own audio CD's using the VS-1880's dedicated CD-RW Mastering button\*. And CD burning is now faster than ever using the 1880's new CD Writing Mode—no more waiting while an image file is built!

But of course, this video wouldn't be complete without a look at the 1880's optional effects processing including COSM Guitar Amp, Microphone, and Speaker Modeling—plus a Mastering Tool Kit\*\*. So why not order your VS-1880 Demo Video today, and discover what a professional digital studio should be!

All Roland demo videos are available for \$5 each (two for \$7.50) by calling the Roland SuperStore at (800) 386-7575 or by visiting the SuperStore section of [www.rolandus.com](http://www.rolandus.com).

\*Note that CD burning requires optional Roland CD Recording System.  
 \*\*Effects processing requires user installation of optional VS8F-2 Effects Expansion Board.



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