



# TRACK

## ▶▶ NOTES

The INFO Source for Digital Recording

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## 5 MINUTES

with Matt Spransy/  
Jacobstone

If you subscribe to any V-Studio-related newsgroups or mailing lists, you've probably heard about the amazing story of a young Milwaukee band called Jacobstone. Made up of brother/sister Dan and Anja Spransy (bass/acoustic guitar and keyboards respectively), plus drummer Chris Johnson and guitarist/lead vocalist AJ Fink, the band was recently signed to True Tones records based on a CD recorded and mixed entirely on a VS-1680! Track Notes recently spoke with Matt Spransy, the band's producer/engineer (and father to Dan and Anja), about recording the band's debut CD, *Glass Top Ships*.

**TN:** How did you get involved producing your childrens' band?

**MS:** I used to be a professional musician and had experience working with producers like Bob Rock and Doug Pinnick. I knew my son wanted me to help them out by doing some production and artist development things, so they started rehearsing at the house and we eventually went to a 24-track studio to put together a 3-song CD.

**TN:** What made you decide to get a VS-1680?

**MS:** They wanted to record a full-length CD. I figured it was going to cost \$20,000 to get the sound they were after—so I was racking my brains, until one day I got a music catalog in the mail and there was the VS-1680.

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# New

## V-Studios Announced at NAMM!

Each year the music industry descends upon Los Angeles to see what's new in musical instrument and recording technology at the winter NAMM show. Of course, there was plenty going on in the Roland booth including the announcement of two new V-Studios: the VS-1880 Digital Studio Workstation and the highly anticipated rackmount V-Studio—the VSR-880 24-bit Digital Studio Recorder. Let's take a quick look at each...

### VS-1880 Digital Studio Workstation

The VS-1880 Digital Studio Workstation re-sets the standard in professional and affordable hard disk recording studios. This complete tabletop workstation packs all the features of the best-selling VS-1680 Digital Studio Workstation and adds some exciting new enhancements, including

18-track playback, 24-bit A/D-D/A converters, and faster CD mastering through a dedicated CD-RW Mastering button and the ability to save files into audio CD image format. And, for a limited time, every VS-1880 comes bundled with free audio production and publishing software from Emagic® and Liquid Audio®.

### VSR-880 24-bit Digital Studio Recorder

The VSR-880 is an 8-track rackmount hard disk recorder with 24-bit sound quality, 128 Virtual Tracks, and all the powerful editing and optional effects V-Studios are known for. This unit can be used with any analog mixer, or digitally interfaced with Roland's VM-7000-Series and VM-3100Pro V-Mixers via its R-BUS terminal, for creating a complete, convenient digital production studio.

While similar to Roland's popular VS-880EX Digital Studio Workstation, the rackmount VSR-880 offers several important enhancements—including 24-bit A/D-D/A converters, a new 24-bit VSR Recording mode, faster CD burning, and R-BUS connectivity—that make it ideal as a replacement for tape-based MDM's or as a track expander for V-Studio owners.



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I investigated it further and ended up getting one of the first ones in the country, along with two effects boards and a CD burning system.

**TN:** Tell us about the process you used when tracking *Glass Top Ships*...

**MS:** We basically recorded the entire CD in my house with a bunch of borrowed mics and a tube preamp. With a young and inexperienced band, you can't track them live, so what I did was record the bass and drums together to a click. As soon as we got a good drum take, I went back and immediately had the guitar player/singer record a guide track while it was all fresh in every body's heads. Then we started doing overdubs.

**TN:** Did you do a lot of cut-and-paste editing once the tracks were recorded?

**MS:** I generally tracked as if it was a tape-based system in that I did not, for instance, just get one good take of a chorus and cut and paste it; I wanted it to sound real and live.

**TN:** What was the biggest benefit of using the 1680?

**MS:** Between the 1680, monitors, mics, and various other things, I ended up spending about \$7,500—and when it was all done I had a studio. That was impossible in the past. I would have easily spent \$15,000–\$20,000 in an outside studio and it would not have been the same CD. This was hanging out in the house, drinking tea, breaking for lunch...whatever pace we wanted to work at. If something wasn't satisfactory, we just went back and re-did it.

**TN:** What's the secret to a good recording on the 1680?

**MS:** The most important thing is microphones. Good preamps really do help, but you have to spend a lot. I don't think that's necessarily true with microphones; you can get a pretty good mic for not a lot of money. Also, try to locate someone that can mentor you in the process and help develop your ears. The limiting factor is not the 1680—it's your microphones, your preamps, and who's driving. The 1680 just opens up doors.

For more information about Jacobstone—including bios, gigs, and MP3 audio—visit their website at [www.jacobstone.com](http://www.jacobstone.com).

In fact, the VSR-880 is really two recorders in one: On its own, the VSR-880 can function as a self-contained 8-track recorder/mixer with optional effects processing including COSM Speaker Modeling and a Mastering Tool Kit. Or, using R-BUS, connect up to six VSR-880's to a V-Mixing System for creating a complete digital recording and mixing environment with an amazing 48-track capacity!

Why limit yourself with tape-based recorders when you could have all the benefits of hard disk recording—including random access, non-destructive editing, Virtual Tracks, optional effects and CD burning—for less than the price of today's most popular MDM's? Check out the VSR-880 at your authorized Roland dealer today!

### VS-1880

- Self-contained 18-track digital recording workstation with built-in digital mixing, optional effects processing, and CD-burning capabilities\*
- 18-track simultaneous playback; 8-track simultaneous recording with 288 Virtual Tracks
- 28-channel, fully automated digital mixer (18 tracks + 10 input channels)
- 24-bit A/D-D/A converters for superb sound quality, particularly when used in 24-bit MT Pro recording mode
- Dedicated CD-RW Mastering button for instant access to CD-burning menus
- Onboard Auto-Mix function for creating perfect mixes
- Faster CD Writing Mode records in Audio CD Image Format
- 2 optional VS8F-2 Effects Expansion boards provide up to 4 stereo/8 mono effects including COSM modeling effects
- Comes bundled with free Emagic Logic™ VS and Liquid Audio Liquefier Pro™ software (limited time offer)

### VSR-880

- Rackmount hard disk recorder with 8 tracks and 128 Virtual Tracks
- 24-bit A/D-D/A converters for incredible headroom and dynamic range
- Backlit LCD; non-destructive editing with 999 levels of Undo
- Optional VS8F-2 Effects Expansion Board provides dual onboard stereo effects processors with Mastering Tool Kit and COSM Speaker Modeling algorithms
- Built-in SCSI port for connecting external hard drives or optional VS-CDRII CD Recording System
- Faster CD Writing Mode records in Audio CD Image Format
- 8 analog inputs/outputs (RCA-type), 2 1/4-inch TRS Mic/Line inputs, plus digital I/O via S/PDIF interface and R-BUS

\*with optional CD Recording System



■ VS-1880 rear panel



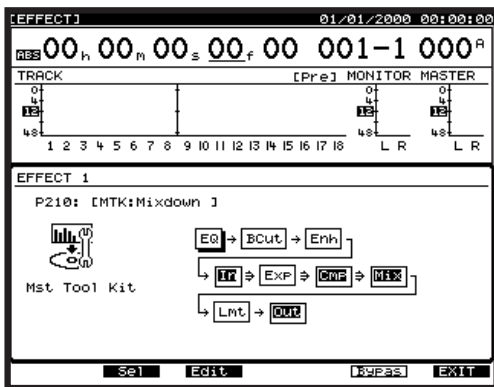
■ VSR-880 rear panel

## Part One in a Two-Part Series

The art of mastering is something most home recording musicians don't understand—but mastering, or the lack thereof, can make or break a great song. Fortunately, the Roland VS-1880, VS-1680v2, VS-880EX, and VSR-880 have the ability to perform the functions needed to master your very own recordings so you can get that professional sound you hear on commercially released CD's\*.

The above-mentioned V-Studios have an effect algorithm called the Mastering Tool Kit, which contains all the components needed to effectively master your recording. This is truly incredible, because people buy dedicated processors costing thousands of dollars just to do mastering, and the Mastering Tool Kit algorithm is already included in the effect processor. Each parameter in the Mastering Tool Kit can be completely adjusted—or if you're not sure what to do, you can use one of the 19 Preset MTK (Mastering Tool Kit) effect Patches. They are named according to their application, like "PreMaster", "Dance Mix", and "RockBand".

In this installment, we'll explain each of the effects blocks in the Mastering Tool Kit algorithm to give you a better understanding of their purpose.



The Mastering Tool Kit Algorithm

### 4-band Parametric Stereo Equalizer

Use this full parametric EQ to raise or lower specific frequency bands. "Full parametric" means you can adjust the width or range of each EQ band. You can even change the top and bottom band from a shelving-type to a peak-type EQ.

\*Requires installation of the optional VS8F-2 Effect Expansion Board.

### Bass-cut Filter

This is used to remove low frequency sound from the recording. Typically it is set to remove the bass you cannot hear. This unheard low frequency energy is what makes most home recordings sound "muddy."

### Enhancer

The enhancer adds a phase-shifted signal to the original sound. Depending on the frequency selected, it can make a mix "sparkle" or have more presence. When used drastically, it can also be used to make a new sound.

### Input

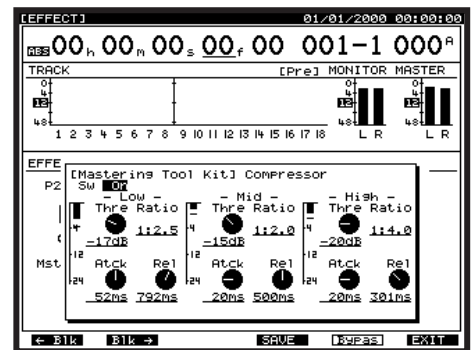
In this effect block you can set the overall level before the signal enters the expander and compressor. Since the Mastering Tool Kit's expander and compressor are multi-band (meaning they can act on different frequency bands at different settings), the Input block also performs the division of the whole source into three bands so they can be treated differently. You can also set the detect time, which controls the amount of time given to the expander/compressor to do their job. This parameter is called "look-ahead" in other mastering processors.

### Expander

The multi-band expander is used to expand the dynamic range of a recording. This makes your recording seem to have more depth because the difference between the high and low level portions of the recording has been *expanded*.

### Compressor

This is the heart of the Mastering Tool Kit. The multi-band compressor looks at the recording—divided into three frequency bands by the Input block—and reduces the peaks individually for each band. This makes the recording sound smoother and punchier overall. This 3-band compressor also works great on vocals and instruments.



Multi-Band Compressor

### Mixer and Limiter

The Mixer block mixes the three frequency bands back into a stereo mix, while the limiter restricts excessive peaks of the overall recording.

### Output

This block sets the final level of the "mastered" audio. The Output block has a Soft Clip setting, which quiets distortion resulting from extreme compressor settings. There is also a Dither setting. Dither is used to fix a problem stemming from taking a 24-bit recording in the V-Studio and reducing it to a 16-bit recording for a compact disc. In short, dither smoothes the transition from audio playback to silence.

As you can see, the Mastering Tool Kit is one very powerful part of the complete Roland V-Studio. Next time, we'll go through some specific applications, so stay tuned!



Roland Corporation U.S.  
 5100 S. Eastern Avenue  
 P.O. Box 910921  
 Los Angeles, CA 90091-0921  
 (323) 890-3700  
[www.rolandus.com](http://www.rolandus.com)

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## 2000 RUG New Product Video Now Available!

Want to get the inside scoop on all the incredible Roland and BOSS products debuted at the 2000 Winter NAMM trade show in Los Angeles? Then order your free copy (that's right, FREE!) of the 2000 Roland Users Group New Product Video. You'll get a first look at the new XV-Series synthesizers, including the ultimate XV-5080 128-Voice Synthesizer/Sample Playback Module, and learn how audio becomes elastic with the VP-9000 VariPhrase Processor. See what's new in hard disk recording, including the power-packed VS-1880, rackmount VSR-880, and the incredibly simple BOSS BR-8. In fact, this video has something for everyone—from the lightning-fast GR-33 Guitar Synthesizer and DJ-friendly MC-307 Groovebox to the hand percussionist's dream, the HPD-15 HandSonic. So what are you waiting for? Order your FREE copy of the 2000 RUG New Product Video today by calling the Roland SuperStore at (800) 386-7575 or by visiting the SuperStore section of the [www.rolandus.com](http://www.rolandus.com) website.



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# TIPS 'N TRICKS

## 1. Installing a Larger Hard Drive

You've probably wondered about putting a larger hard drive in your V-Studio. Whether you've got a "classic" VS-880 with an original 540MB hard drive, or you simply want to beef up your VS-1680, installing a bigger hard drive is easier than you think.

First, take a look at the *VS-Series Digital Studio Workstation Compatible Media Guide* to see what hard drives have been approved for use with your V-Studio workstation. This document can be found on the Internet at <http://www.rolandus.com/SUPPORT/DOCS/SUP-NOTES/VSCOMP.PDF> or by calling Roland's FaxBack Service at (323) 890-3780 and ordering Document #21032.

But before you run out and buy the largest hard drive you can find, keep in mind a few things: The VS-880 and VS-880EX use 1GB partitions, with a maximum of four partitions. This means a 5GB internal IDE drive would be formatted as four partitions of 1GB each. The last 1GB would not be used by the VS-880. The VS-1680, on the other hand, formats drives in either 1GB or 2GB partitions and with a maximum of eight partitions.

Remember, if what you *really* need is long-term song storage, the VS-CDRII CD Recording System is the best bet. Simply back up all the songs you've finished mixing (that are still hogging up space on your internal hard drive) to inexpensive CD-R or CD-RW media; you can then restore the song back into your V-Studio whenever you like.

## 2. Using Phrase Divide

The VS-1680's Phrase Divide feature can be used to remove unwanted low-level noise or silence from your tracks. This helpful function can also kill headphone bleed between verses on vocal tracks, or even create a classic gated snare sound. In a nutshell, Phrase Divide automatically erases any part of your track that falls below a user-designated volume threshold. Let's try it out...

Under Track Editing, press F1 [Tr/Ph] to activate the Phrase Edit Menu. Then press [PAGE] until you see "Split" above [F2]. Any part of your track softer in volume than the "IN Threshold" will be erased. The "IN Margin" value determines how fast the Phrase Divide kicks in, and the "OUT Margin" value determines how fast it turns off. Shorter IN and OUT Margins will make the track sound choppy.

**For your first run, try the following settings:**

Type =	Divide
IN Threshold =	- 12dB
IN Margin =	0.5sec
OUT Threshold =	- 24dB
OUT Margin =	0.5sec

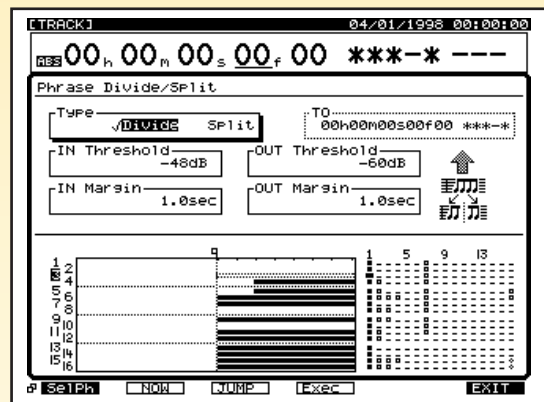
Don't worry about experimenting with Phrase Divide, because you can always UNDO it. If the above settings don't work for your particular track, simply press UNDO, change the values a bit, and try again.

## 3. Just Undo It!

Did you know that re-recording over a previous take—especially when repeatedly doing so to nail a difficult solo or vocal—will actually fragment your hard disk?

Because V-Studios are non-destructive and include 999 levels of Undo, those takes you thought were erased are actually being "stacked" invisibly on top of all the others, causing disk fragmentation and "Drive Busy" messages.

How can you avoid this peril? It's simple—just "Undo" it. By using Undo, you can erase a recording without the risk of fragmentation. So next time you record a take and decide you want to try again, remember to hit UNDO.



The VS-1680's Phrase Divide screen