



TRACK NOTES

The INFO Source for Digital Recording

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Using the VS-880/1680's 19-Band Vocoder

VS-880/1680 owners with effects expansion boards can employ "Effect B84: Vocoder2" to get some great vocoder-type effects. For those of you unfamiliar with vocoder effects, they allow you to apply the envelope of one signal (such as a human voice) to another (such as a synth pad or guitar sound). This superimposes some of the characteristics of the voice, for example, onto the synth or guitar sound that's being controlled. The result is a variety of expressive sounds including the so-called "Talk Box" effects that make a keyboard or guitar sound like it's "talking."

To use the VS-880/1680's Vocoder, first decide which track you want to control and which track you want to use to do the controlling. For our example, let's call one of these tracks the "Envelope", and the other the "Pad".

ENVELOPE TRACK: This should be a track with a very distinct envelope (i.e., attack, sustain, release characteristics). For experimentation purposes, try starting off with a vocal track.

PAD TRACK: This needs to be something with a lot of sustain: a synth pad, strings, organ, or a strumming acoustic guitar. Also, for best results, try to select something with a lot of harmonic content that plays pretty much throughout the track.

Once you've decided which track to use as the Envelope and which track to use as the Pad, setup is simple:

Set up Effects 1 as a Vocoder.

- Press EFFECT (located in the Edit Condition area).
- At "EFFECT -1 PRM?", press YES.
- Use the jog wheel to select "B84".
- At "VOC2: M19Band", press YES.

Now set up the routing for the two selected tracks. For this example, let's have the Envelope track (the vocal track) on Channel 2, and the Pad (the synth track) on Channel 7.

- Press SHIFT + CH EDIT 7 (this sets up routing for Effect 1). Turn off any previous routing of Effect 1.
- Press CH EDIT 2 (to specify the channel where your Envelope track is).
- Use the jog wheel to make the display read "CH2 EFFECT1=InsertR".



Press CH EDIT 7 (to specify the channel where the synth track is).
Use the jog wheel to make the display read "CH7 EFFECT1=InsertL".

Now simply play the song from a point where you know there is some activity on Track 2 (the vocal track). Note that you won't hear the original "dry" vocal track; you will only hear the synth track modulated by the vocal track. *Continued on pg. 2*

New Software for Backing Up VS-880 Projects to CD!

We're very excited to announce yet another software upgrade for the VS-880. This upgrade allows users who own the VS-CDR CD Recording System to back up their projects using their CD recorder. This added functionality is very exciting because it allows VS-880 owners to safeguard their work on a very inexpensive and reliable media. For more information, check out the Roland Website at: **(Mac version)** <ftp://ftp.rolandus.com/pub/roland/libdata/SOFTWARE/VS880310.SEA.HQX>, **(PC version)** <ftp://ftp.rolandus.com/pub/roland/libdata/SOFTWARE/VS88031.ZIP>.

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REALTIME TIP: When experimenting with the Vocoder, your vocal track doesn't need to be pre-recorded. You can simply plug in a mic and route it to Channel 2. Then press the Status button to monitor SOURCE (Status button turns orange) and make sure the Input Sens. knob is cranked pretty high. Start talking or singing and have fun.

HELPFUL HINT: The Vocoder does require a bit of experimentation to get a great combination. Usually it sounds best when the Envelope track is very hot. You can also try different Pad tracks by reassigning EFFECT1=InsertL to another channel.

FURTHER TWEAKING: There are lots of additional parameters that you can tweak to customize your "vocoded" sound. Let's look at a few:

Envelope Type: The choices are "Sharp", "Soft", and "Long". Basically they adjust the attack and release of the Envelope and its affect on the Pad. Use Sharp if you want individual words to have an effect or when you want a staccato sound. Soft seems to smooth out the attack, while Long extends the decay for a more sustained sound.

Pan: This controls the panning position of each of the 19 bands of the Vocoder. Mono is monaural; Stereo puts the odd-numbered frequencies in the Left side, even frequencies in the Right to widen the field. L>R puts the low frequencies on the left side and the high frequencies on the right side.

Hold: This control allows you to use MIDI to "capture" the settings of the formants that were happening at the time the MIDI Hold message was received.

Vocal Character 1-19: This parameter adjusts the volume of each band of the Vocoder. Changing these will adjust the frequency balance of the overall sound.

MicMix and MicPan: Normally the Envelope sound is not going to be in the mix; it's only a controlling influence on the Pad. However, you can mix your Envelope sound into the overall mix if you'd like. The controls which allow this are the MicMix, where you set the Level, and the MicHPF—a highpass filter. Using the MicHPF control, you can mix-in only part of the frequency range of the Envelope sound.

The VS-880/1680's Vocoder is a really unique effect. Experiment and enjoy!

New VS-1680 Demo Video!

Those of you who want to learn more about the amazing VS-1680 24-bit Digital Studio Workstation can now order the new VS-1680 Demo Video. This 15-minute video covers everything from basic VS-1680 features like 256 V-Track recording, 16-track playback and built-in effects to the actual button pushes required for routing, parameter editing and more. But beware, after seeing how powerful and easy-to-use this new VS workstation is, you'll be hard pressed not to visit your local Roland dealer for a hands-on demo! The video is available through the Roland SuperStore for just \$5 by calling (800) 386-7575.

in the SPOTLIGHT:

The Badlees



Photo: Danny Clinch 6/98

Bret Alexander, Jeff Feltenberger, Ron Simasek, Paul Smith, Pete Palladino

Recently, *Track Notes* had a chance to talk to Paul Smith from the Badlees, a modern rock band that's finishing up their latest CD for A&M/Polydor Records with the help of veteran recording engineer Joe Alexander.

Like many users, Paul originally bought his VS-880 simply to demo songs he was writing. He had no plans to integrate the 880 into the band's straightforward "plug-in-and-play" method of album making. Needless to say, things changed after he got "hands-on" with the VS...

Looking back on their decision to integrate the VS-880 into the recording process, Paul said that the band now realizes that if they hadn't, the Badlees would have "spent a lot more time and had a lot less control over the project... It turned out to be an incredibly useful device." Yet the integration of the 880 happened quite by chance.

The Badlees started working on the record in February in a smaller studio in the Harrisburg, Penn. area. They had planned to record guitars and vocals and then finish the record in a major studio in Los Angeles with some other sessions at Bearsville in New York. While cutting vocals, Paul decided that the Virtual Tracks in his VS-880 might really help out with the comp'ing process. He went out and bought a sync box (Midiman's Syncman) to lock the VS-880 to the band's basic tracks, and then began cutting vocals straight to the 880.



Paul Smith with the VS-880.

"Using a mic and an external preamp right into the VS-880—recording take after take, locked to the other tracks—turned out to be the best process for us," said Paul. After tracking, Paul would routinely take all of the vocals home and edit and comp together the best versions. Once he felt they had the best possible takes, he would then go back to the studio and fly the vocals back to tape.

This process worked so well that The Badlees continued it at in the studio with the guitar parts as well. One band member was a bit nervous at first, noted Paul: "The studio was \$1100 per day and there's just this little hard drive and this sync box... But everything worked out perfectly. We continued to cut lots of guitar takes, edit together the best versions and then send them back to tape."

In April, the band flew to Los Angeles to finish the record. They began by recording acoustic drums to multitrack tape. They then decided to try something different with

the rhythm tracks; after recording a couple of takes of the drums, Paul would transfer the takes into the VS-880. This was done in two passes for the whole song, since the VS-880 only records four tracks at once. One pass was kick, snare and hi hat and then the other pass included the stereo room ambiences. Paul was very happy to find that there were no phasing problems from this two-step transfer process. "We never had a single phasing problem. Not a single thing."

Using these tracks, Paul would take one or two of the best measures and loop the drum parts for that and similar sections of the song. These loops were then transferred back to the multitrack for the drummer to do overdubs of cymbals and fills. Certain sections were left blank with only the click from the 880 metronome playing. For these sections, the drummer would play the entire part again. For example, the song "Don't Let Me Hide" has the looped drums along with live fill overdubs for the verses and choruses and then re-cut, live drums for the guitar solo.

Paul and the band had many chances in every one of the studios to scrutinize the VS-880's sound quality. He confirms: "The VS-880 was sonically indiscernible from using any other method, including very expensive consoles."

With the album completed and the Badlees waiting for its release date to arrive, the band has been doing much more recording and songwriting at home using (you guessed it) their VS-880. Be sure to check out the Badlee's record when it hits the streets. We think you'll be floored to hear how great this young band—and their trusty VS-880—sounds!

VS-840 TIPS: Using Track Cue Knobs to Control Panning

One more-or-less "hidden" feature of the VS-840 is its ability to use the Track Cue knobs to control several different functions of the digital mixer. Here's how to use the Track Cue knobs to control channel panning.

To access the panning feature, hold SHIFT and then press the Pan button located above the channel faders. You will see a message flash across the screen: "Track Knob Assign: PAN". You can now use the six Track Cue knobs to control the panning of the six mixer channels. The key to using the panning function is knowing that you must hold SHIFT while turning the knobs. Note that you can still use the knobs without holding the SHIFT button to control the Track Cue levels as you normally would. To exit this mode, just press DISPLAY.

You can also use the Track Cue knobs in the same way to control channel aux. sends, effect level sends, and also to control the VS-840's digital EQ. When using these knobs for EQ, the trick is to cursor to the parameter you want to control before holding SHIFT and then pressing the EQ button to enter the Track Cue knob mode.

Perfect VS-880 Loops on the First Try!

In last month's *Track Notes*, I explained how to use the VS-880's Scrub function. This month, we'll put this information to the test by using Scrub to loop some audio.

The hardest thing about looping audio on the VS-880 is figuring out the start and end points of the loop. This takes a bit of practice, but once you've trained your ear for what to listen to while scrubbing, you can get it right every time. In contrast, the easiest thing about looping audio on the VS-880 is simply stepping through the button pushes.

In the following example, I'll list the steps necessary to loop a drum track recorded on Track 2-1 onto Track 3-1.

- 1) Calibrate the Time/Value dial. (See the last issue of *Track Notes*!) Right cursor [>] five times. Look for arrow in time display.
- 2) Calibrate the Scrub Direction. Press PREVIEW TO once.
- 3) Play the drum track. Just before the downbeat of the first measure to be looped, place Locator 1 on the fly. The first time you do this, it might take a couple tries to nail it.

NOTE: Pressing locators "on the fly" is a great way to set edit points in the VS-880. With some practice, you'll find that your locators get incredibly accurate. (Warning: accuracy of locators placed on the fly also varies with caffeine intake.)

- 4) Just before the downbeat of the measure past the section to be looped, put Locator 3 down on the fly.
- 5) Press STOP. Go back to Locator 1 (which should be just before the downbeat).
- 6) Press SCRUB and then CH EDIT 2. This tells the VS-880 you want to scrub Channel 2. Slowly turn the dial clockwise until you hear the beginning of the kick drum in the first measure. To get the precise beginning of the kick drum sound, press and hold SHIFT while slowly spinning the dial back and forth to decide on the exact point. During this process, you will also be able to see a waveform that can also help you find the actual downbeat.
- 7) Once you've found the actual beginning of kick drum, press STOP. You

may want to press PREVIEW FROM to be sure you're at the exact position you think you are. Next (very importantly!), CLEAR Locator 1 and re-write it at this new position. The actual button presses are: STOP, CLEAR+LOC 1, LOC 1.

- 8) Repeat steps 5 through 7, except this time for Locator 3. Use SCRUB to find the beginning of actual downbeat, then re-write Locator 3 at this position. If you have used PREVIEW FROM to check your position, be sure to check the SCRUB direction by pressing PREVIEW TO before finding the next downbeat.
- 9) Check the accuracy of your locators. From Locator 1, press PLAY. You should be right on a downbeat. Ditto for Locator 3. If you aren't, go back to step 5 and try again using SCRUB. As long as each locator is on the exact beginning of a downbeat, your loop will sound absolutely seamless.
- 10) Now for the easy part: the button presses. Button presses are indicated in CAPS. Questions appearing in the VS-880 display are shown in quotes. The right hand Parameter button is shown as [>>].

Hit TRACK under the display until you see:

"Track Copy ?"	Press YES
"Copy Trk ?-? -> ?-?"	Press CH EDIT 2, press YES, then press CH EDIT 3
"Copy Trk 2-1 -> 3-1"	Press [>>] once to get to the next page
"TRK Copy St = ?"	Press LOC 1, then press [>>]
"TRK Copy From = ?"	Press LOC 1, then press [>>]
"TRK Copy End = ?"	Press LOC 3, then press [>>]
"TRK Copy To = ?"	Press LOC 3, then press [>>]
"TRK Copy Times = ?"	Use the dial to select number of loops you want, then press [>>]
"Track Copy OK?"	Press YES

Pull down Fader 2 and bring up Fader 3. Press LOC 3 to get to the beginning of your loop and then press PLAY. With a few practice runs, you'll get this down so you can do perfect looping on the very first try. If on the first attempt your loop doesn't sound seamless, don't panic. Just press UNDO and try again. Happy looping!



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FaxBack is the fastest and easiest way to get help with your VS-Series Digital Studio Workstation. All you need is a fax machine. To begin using this great service, simply call (323) 685-5141, press 2 and then dial extension 271. Follow the telephone prompts to order up to five documents per call. At the end of the process, FaxBack will ask you to enter your fax number. Once you enter the number and hang up, FaxBack immediately dials your fax machine and transmits the requested documents. Here's a list.

Product Specifications and Info.

DOC #	Product	Description	Pages
10244	SI-80S	LANC to MTC Converter	1
10237	VS-840	Digital Studio Workstation	2
10071	VS-880V2	VXpanded Digital Studio	4
10243	VS-880-S1	System Expansion Upgrade	1
10072	VS8F-1	Effects Board	1
10202	VS-CDR-S2	CD Recorder	1
10259	VS-1680	24-bit Digital Studio Workstation	2

Operational Support Documents

DOC #	Product	Description	Pages
20069	VS-840	TurboStart	1
21058	VS-840	Synchronization	5
20056	VS-880-S1	TurboStart	1
20067	VS-CDR-S2	TurboStart	1
20032	VS-880	TurboStart	1
21023	VS-880	Basic Recording	29
21026	VS-880	Connecting Multiple VS-880's	4
21032	VS-880	Compatibility Guide	2
21027	VS-880	Synchronizing With Sequencers	6
21029	VS-880	Updating from SMF w/ Update Specs	2
21030	VS-880	MIDI Implementation (Vers. 1 OS)	19
21035	VS-880	MIDI Implementation (VXpanded OS)	35
21052	VS-880	Hot Tips Keyboard Magazine Article	9
21059	VS-880	Secrets of the Virtual Studio	7
20072	VS-1680	TurboStart	1
21060	VS-1680	VS-880/VS-1680 Synchronization	3

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