



Yamaha has been mining the FM mother lode for over two years now—but it still comes as a bit of a shock to see an eight-voice multi-timbral, 336 program MIDI expander for under \$400.

Yamaha FB-01 Sound Module

BY TONY THOMAS

I can't tell you how many times I've wanted a compact, low cost, and versatile multi-timbral MIDI expander unit. The Casio CZ-101 comes close, but four monophonic voices with no individual volume controls limits its usefulness as a multi-timbral device. But with the FB-01, Yamaha has given me what I have been hoping for and much more.

WHAT IS IT?

The FB-01 is a compact (half rack space), eight-voice, velocity and aftertouch sensitive, multi-timbral MIDI expander module (i.e. no keyboard) that utilizes Yamaha's four operator/eight algorithm FM sound generation system (essentially a scaled-down version of the one used in the ever-popular DX7). Good things really do come in small packages!

While the FB-01's voice architecture is nearly identical to that used in the DX21, 27 and 100 synthesizers, the FB-01 is not voice compatible with any of them. This is somewhat of a problem, since if you have another DX synth, you won't be able to transfer any of your patches to the FB-01. Also, there is no way to program the module except via the FB-01 Voicing Program (YRM-506; retail \$60) for Yamaha's CX5M computer. These are not debilitating drawbacks, however, since the FB-01 has internal sounds aplenty—240 preset (not alterable) patch-

Tony Thomas has been involved in advertising, broadcasting, recording, and publishing for the past ten years. He is presently the managing director of Target Communications International, a full-service advertising agency, broadcast production company, and MIDI-based recording studio.

es in ROM, with an additional 96 in user RAM for a total of 336 (a new record?). The full gamut of DX sounds are in residence, including the obligatory tine piano, horn, bass, strings, woodwinds, plucked sounds, percussion, organs, pianos, clavs, bells and sound effects. Remember, though, that since the FB-01 has no cassette interface, a computer or disk-based MIDI voice librarian program are the only means of storing and retrieving patches created by the user.

“ . . . combining two patches . . . for a rather crude form of additive synthesis provides a superb eight-algorithm sound, in stereo no less”

WHAT'S IT ALL ABOUT?

The FB-01 sports an amber backlit LCD display that glows brightly in the dark—great for those of us who must work regularly in poorly lit studios or live situations. The rear panel includes MIDI In, Out and Thru jacks, the power switch, battery backup switch, and a pair of outputs for true (not merely chorused) stereo. The front panel consists of the aforementioned LCD, as well as a group of eight pushbuttons which access the various functions contained in the FB-01's software. These switches are named System

Setup, Instrument Assign, Instrument Select, Instrument Function, Voice Select, Voice Function and Data Select Increment/Decrement (Yes/No).

Only when you examine the FB-01's internal software functions does its considerable power become apparent. You can allocate its eight voices any way you want—from eight note polyphony, to four-voice splits and layers for live gigs, to eight *different* mono voices on separate MIDI channels for some really serious fugues! These *configurations* (16 user programmable/four factory) contain associated voice data (i.e. patches), function data (see next paragraph for definition), stereo pan assignments, MIDI channel, upper/lower key limits for assigning each voice to a different keyboard zone (you can even do eight-way splits), octave, and so on. These configurations can be stored in RAM memory and recalled for later use.

The 336 resident voices are stored in seven 48-voice banks. The function data that can be stored for each voice includes pitch bend range, portamento time, poly/mono and pitch modulation depth (which can be assigned to the modulation wheel or other controller), aftertouch, and foot or breath controller if your keyboard controller supports these devices. An interesting MIDI key number receive mode permits you to configure the FB-01 to receive either odd or even MIDI note numbers; thus, you can strap two units together to operate as a single 16 note multi-timbral MIDI expander.

ONCE AROUND THE BLOCK

After reviewing the manual and impressive features of the FB-01, I decided to take the unit for a test spin. I first set up User Configuration #1 as follows:

MIDI Chan. 1: E. Bass (one voice)
 MIDI Chan. 1: Rubato Bass (one voice)
 MIDI Chan. 2: New EP (electric piano) 5
 (four voices)
 MIDI Chan. 3: Metal (one voice)
 MIDI Chan. 3: Clavinet (one voice)

As I began recording my sequence into the FB-01, I noticed that even though it is a four operator/eight algorithm device, the sounds are nearly as good as those on the DX7. In fact, combining two patches (as I did with the bass and lead sounds) for a rather crude form of additive synthesis provides a superb eight-algorithm sound, in stereo no less.

One problem with the factory patches is that, even though they are velocity-sensitive, all the operators were set to the same value of velocity sensitivity. Because of this, you only get a dramatic (and often uncontrollable) volume change and no timbre change; this feature was probably included to accommodate non-velocity instruments such as the DX21. This prevents the FB's sound from really shining, unfortunately, since much of the allure of the DX system is its ability to dramatically change timbre according to how hard you hit the keys, as occurs with an acoustic instrument. As computer-based patch editors become available for this unit, musicians with velocity keyboards could tailor the internal sounds, as well as create new ones, to take advantage of all of the FB's expressive potential. Another point about the overall sound of the unit is that a single DX does not a system make; although the multi-timbral sound is quite acceptable for demos, it could stand some help from a MIDled analog synth or sampler if you are involved in a serious project.

One of the FB-01's best features is its ability to store user configurations. I found this ability really helpful when putting down the basic elements of a song; I could have different sounds on different channels, and retain all this information in memory. Before using the FB-01, I needed to use a half-dozen other synths to do the same thing—and remember which was playing which sound, and over what channel, when I came back a week later to make another pass at the sequence! Now I just store what I need as a configuration, feed the sequencer into the FB-01, call up the configuration, call up the sequence, and I'm set. Those with Oberheim Xpanders are familiar with this "multi-patch" programming option, and

it's great to see this concept implemented in a low-cost box.

FINAL APPROACH

I feel that the FB-01 is an instrument that every MIDI system owner could benefit from owning. It's perfect as a quick and dirty "demo doctor" for constructing songs without a lot of bother, as a sound generator for MIDI guitar synth systems (with two extra notes for doubled bass), and as a sensational stereo sound module which is capable of handling a variety

of sonic chores (isn't it terrible wasting a DX7's 16 voices on a monophonic glock sound—here's the answer!). It is a great starter module for a small MIDI setup or a super addition to a large one. Onstage or in the studio, you could put together five or six of these little units and create the sound of an orchestra. Its low price (about \$350 retail) is also going to make a lot of new friends for Yamaha. All in all, it sets a standard for price versus performance that will be hard for other manufacturers to match—much less beat. **CM**



Guitar Showcase...

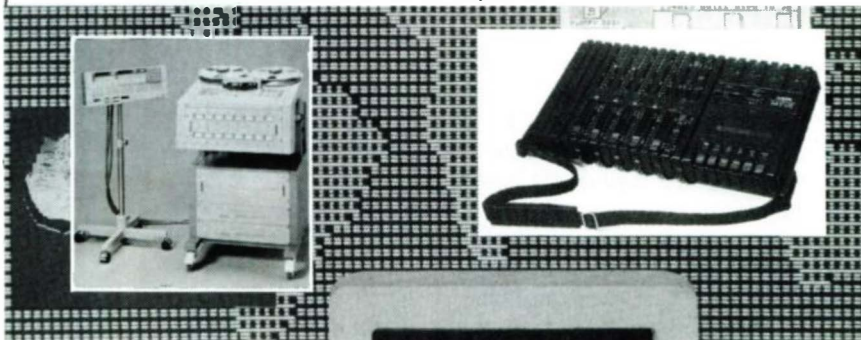


Showcase Audio... A Division of Guitar Showcase

SHOWCASE
A·U·D·I·O

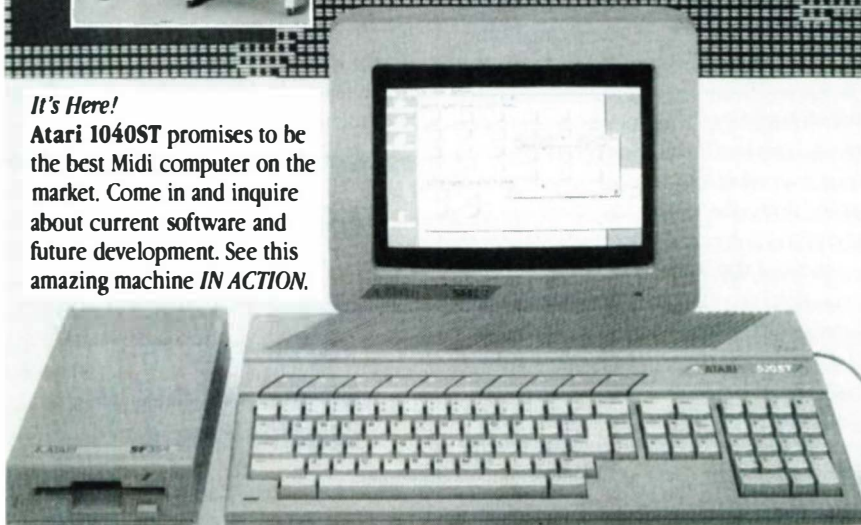
No matter what your musical needs are, from the smallest guitar part, to the largest PA/Recording Board, from Midi to Musical Software. Guitar Showcase and Showcase Audio have it.

Not only does Guitar Showcase offer you the most complete selection of musical software, we are the *ONLY* Bay Area music store that is an *AUTHORIZED ATARI COMPUTER DEALER*. Hardware/Software/Music/The Best Price/Biggest Selection/and now...the *LARGEST* music store in the Bay Area!



It's Here!

Atari 1040ST promises to be the best Midi computer on the market. Come in and inquire about current software and future development. See this amazing machine *IN ACTION*.



3090 S. Bascom Ave.
San Jose, CA 95124
(408) 377-5864



1360 41st Ave.
Capitola, CA 95010
(408) 476-4882

▶ MUSIC
▶ MICROS
▶ MIDI
▶ MULTI-
TRACK
and more!

Electronic

MUSICIAN

NOVEMBER 1986

U.S. \$2.50
CANADA \$3.50

Alternate Tunings

The newest old wave in composition—what it is, why it is, and how you can coax these new sounds out of your electronic instruments

Careers

You can do it—be a freelance electronic musician or a music software company

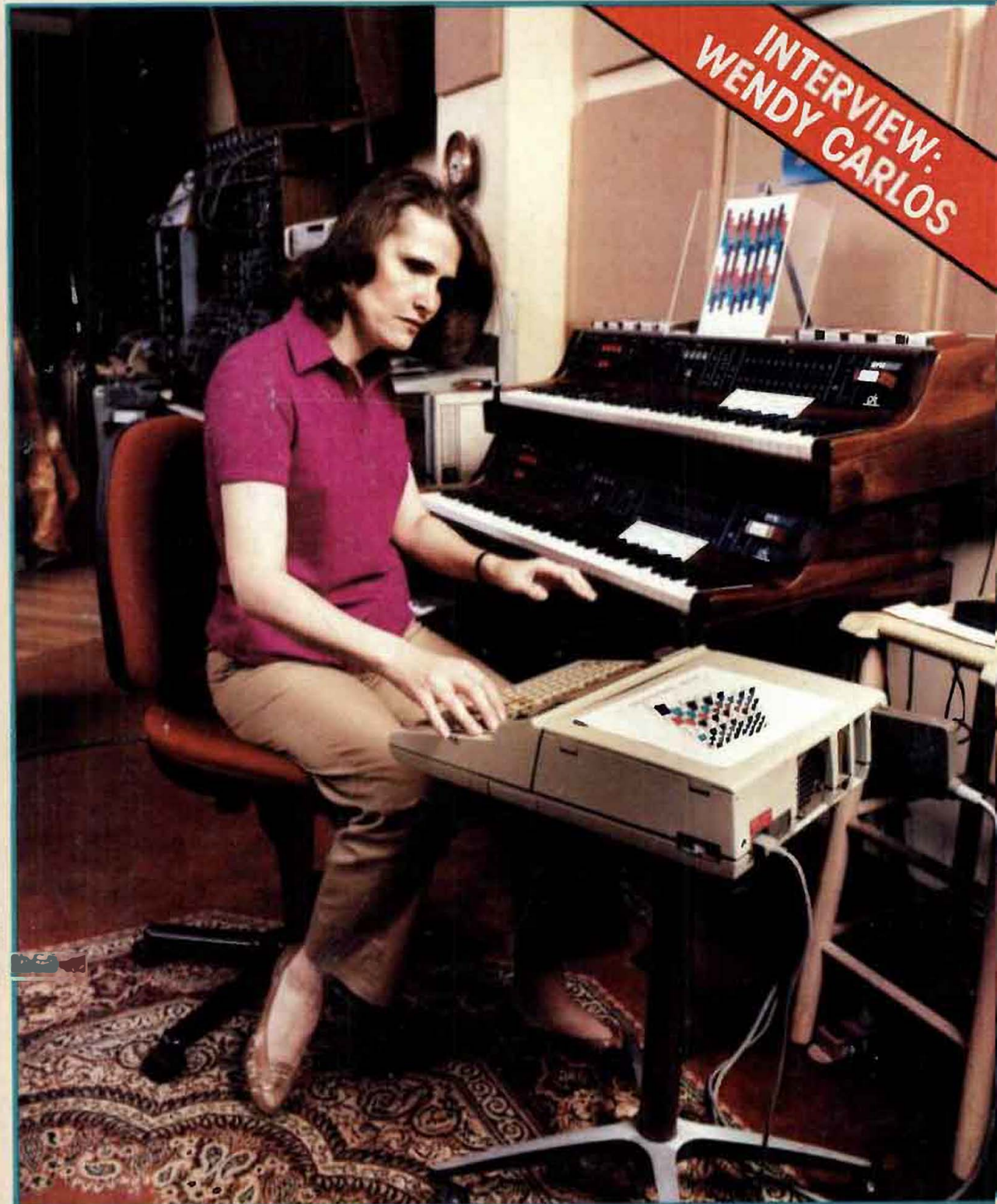
Build an AC Line Filter

Protect your gear from minor surges and spikes

MIDI Switch Boxes

Learn the ins and outs of these handy accessories

Reviews: Alesis MIDiverb and MIDifex, Yamaha FB-01



A MIX PUBLICATION