drumKAT 3.5

Crash Test #1

THEY'RE BACK!

By Trey Battute

In November of 1995, KAT went out of business. For a period of time, the manufacturer of the most sophisticated MIDI percussion controllers didn't build any new instruments. Without KAT, it looked like electronic drummers were up the creek without a paddle.

Enter Mario DeCiutiis, the vice-president of KAT, who came in and saved the day. Since the formation of a new company called Alternate Mode, all of these percussion controllers are again being manufactured. Alternate Mode has recently signed a distribution deal with E-Mu Systems in Scotts Valley, California. With this, the KAT family of instruments should be more visible and more available than in the past. Each instrument in the KAT stable has undergone a transformational upgrade and this article will look at the new Turbo drumKAT.

The New Turbo drumKAT Upgrade

In a time when most manufacturers are trying to "dumb down" their gear, it's refreshing to see a company that isn't afraid to offer the professional user a piece of professional gear! It is unfortunate, but one of the basic premises in life is that choices complicate matters. For those who are afraid of the complications of computers, there's Web TV. For those who aren't comfortable programming their own sounds, there's general MIDI. As more choices are offered, more flexibility, power and control are passed on to the user.

The new ultra drumKAT is stuffed full of flexibility and control. The new drumKAT Turbo features can be broken down into five main groups: Memory, MIDI, Notation, Ease Of Use and Performance:

Memory. Dynamic Allocation: The main advantage of using dynamic allocation is that memory is flexible and available when and where it is needed. The new drumKAT Turbo upgrade is capable of holding up to 48 different kits and 32 motifs. In addition, the motifs are no longer of specific size. Now you can create a motif that has as many events as you need, until the memory is used up.

MIDI. Bank Select: Since quite a few of today's sound modules are capable of accessing more than 128 different sounds, the MIDI message for bank select is now critical on a MIDI controller. Once you enable the bank select feature in the Preferences menu, you can set the bank in the kit edit screen that controls the program changes. In this screen you can select the MIDI-Out port (left, right, both or none), the bank number, the program number and the volume number — sorry, no room on this screen for stereo pan position. Each screen has room for three sets of data, and there are two program change screens, offering a grand total of six different program change messages per kit.

Notation. The notation features may prove to be the most important facet of this upgrade. Now it is possible to sit down at the drumKAT, hear the sounds you want, and get a musical notation record of what you played.

Here's how it works: When the notation mode is turned on from the global screens, the right pair of MIDI-outs sends a pre-determined set of MIDI note numbers that can be recorded by a computer-based sequencer or notation program. These note numbers correspond to the pad or trigger that was played. While this notation information is being sent out of the right pair of MIDI-outs, the left pair of MIDI-outs functions normally, sending all of the MIDI messages that have been programmed for the pads and triggers.

The notation serves as a type of kinetic map that shows which pad was hit in tempo. By using regular note-heads for the pads that are included on the surface of the drumKAT and triangle-shaped note heads for triggers that are plugged into the drumKAT, a com-

RATINGS	
5 = Excellent	
4 = Very Good	
3 = Good	
2 = Fair	
1 = Poor	
Programming Ease:	4
MIDI Implementation:	5
Creative Options:	5
Tracking:	5
Value:	5
Overall Rating:	4.8

plete notational system is available. Since note numbers are preassigned, this provides a uniform notation for drumKAT compositions.

Ease Of Use. Motif Clear Screen: When you call up this screen, the display will tell you whether or not the motif is being used in a kit. By hitting pad 8, you can erase the motif in one easy step.

Kit Clear Screen: This screen shows the kit number and indicates whether or not the kit is being used in any songs. You can erase the kit by hitting pad 8.

Memory Usage Screen: This screen illustrates the usage of dynamic RAM. It displays the total amount of free memory remaining, the amount of memory occupied by kits and the amount of memory occupied by motifs.

Kit Memory: The drumKAT Turbo software now makes it very easy for you to remember if you've saved a kit after editing. Now, kits that have not yet been saved have an asterisk displayed before the kit number.

Performance. Tracking Speed: With the new processor comes a faster and more reliable tracking. Alternate Mode claims that the drumKAT is now 50 percent faster than the older unit. In addition, a new sequence timing chip doubles the resolution of motifs. The new drumKAT has a quantized resolution of thirty-second notes.

Roll Mode: This new mode was designed for driving drum machines and samplers that respond to MIDI note-off messages. When roll mode is enabled, no note-off message is sent until you stop playing on the pad. I found that the new roll mode enabled the

drumKAT to track a closed roll with aplomb.

Program-, Tempo- and Kit-Change: Three new control modes allow a single pad to be assigned to perform a MIDI program change message, a tempo change or a kit change. The program change message includes the MIDI output, the MIDI channel, the program number, the bank and the volume.

Motif Transpose: Now that the drumKAT can have up to 30 different motifs, wouldn't it be cool if you could transpose them? Well, guess what? You can! Each motif can be set to transpose, and any pad can be used as the controlling pad that initiates the transposition. As in the older 3.5 operating system, there are a variety of transposition types.

Footswitch To Tap Tempo: Footswitch three can now be used to set the tempo in the same manner as a pad.

Event Slice Mode: Now that the event slice feature is fully implemented, you can play back motif figures in real time. Each time you hit a pad, a "slice" of the motif is played. For example, if your motif uses sixteenth-notes and you set the event slice to half-notes, each strike of the pad will play through sixteen notes of the motif. When in event slice mode, the duration of the notes depends on the gate time that is set on the pad, and not the actual duration that was recorded into the motif.

Multiple Link Mode: One of the drumKAT's strongest features has always been its ability to link one pad's programming to another. Now the linking feature goes one better, as it is now possible to chain up to three different pads to a single stroke. For example, you can link pad one to pad two, then link pad two to pad three, and you'll fire three functions when you hit a single pad.

Chick Link: This is a simple link-type function that allows any pad to link to the chick sound assigned to the hi-hat input. Functionally, this gives you one additional sound to link with the ten pads on the drumKAT's surface and nine external triggers.

Alternate 128 Mode: I saved the best for last. This is nothing short of awesome. Any percussion controller more sophisticated than the original Roland Octapad has been capable of alternating between four different sounds. The older drumKAT could alternate between eight different sounds. Now imagine being able to alternate between 128 different sounds! How about programming an entire

bass line from the bass drum trigger pad? Using two pads programmed to this mode would allow you to play a rippin' guitar solo of over 200 notes — and from only two pads!

Positives. Just about every new feature in this new upgrade increases the power and flexibility of the drumKAT, making it the most sophisticated drum controller available. The alternate 128 mode and the three-pad links alone are well worth the upgrade's price.

Negatives. The alternate 128 mode is the hippest thing to happen in electronic percussion programming in the last few years. But it would be even better if each note could be programmed with individual channel, MIDI Output and gate time. You can get around this by setting long gate times in monophonic mode. Then a note will last until another note cuts it off. You can also program rests by not assigning a note to a MIDI output.

The software installed in the review unit had a few bugs that still needed to be fixed: Sometimes in notation mode, a note would have a very long gate time, resulting in some super-long note values. At times, the machine also fired spurious notes all by itself. These problems should be fixed by the time the upgrade is available to the public.

My Wish List: Okay, Alternate Mode. Now that you're distributed by E-Mu, how about an internal sound engine? Find a way to stick the guts of a ProCussion and the Proteus/World inside the body of the drumKAT. Now that would be awesome!

To get the new upgrade, you must send your drumKAT to Alternate Mode. While other upgrades have been available with a user-installed chip and new instructions, this upgrade is much more involved. It requires a new processor, memory chips, a new crystal and a new RAM chip. Once the Turbo upgrade is made, future upgrades will be possible. The price of this upgrade is $260.00 plus shipping. If you order before August 1, 1997, you will be eligible to receive the next upgrade for half price. DrumKAT upgrades from 1.0 to 2.4 require additional hardware before they can make the Turbo upgrade. In addition to the new features, the upgrade incorporates all of the drumKAT's software improvements made from 3.5 through 3.536. A few of these include a song mode toggle, improved hi-hat scanning, foot control scanning adjustments for the Roland pedals and improved MIDI-In recording for motifs.