PRODUCT TESTS

ELECTRONICS

Akai XR10 Drum Machine

CALLED THE "ULTIMATE Drumming Machine," Akai's new XR10 boasts 16-bit digital sounds, flexible sound editing controls, 99 user patterns along with 50 factory patterns, 20 songs, and a list price of $699.00. Without a doubt, this drum box offers some impressive features. On the other side of the coin, Akai's design team has made some puzzling compromises. What can the XR10 do well and what are its limitations? Read on.

General Information. The XR10 is just a little bit larger than a three-ring notebook and weighs in at less than four pounds. The back panel houses the power switch, the AC adapter input, MIDI-in and Out jacks (no thru), two quarter-inch jacks, along with stereo, headphone, and effect outputs. The front panel contains two large knobs (one for volume and one for temp/dada), a numeric key pad, cursor controls, and 24 rectangular buttons. An LCD display with two lines of 16 characters each keeps you in touch with the internal workings of the XR10.

In order to communicate with the XR10, you must first select one of its four operation modes. The mode buttons toggle among the patterns, song, sound, and utility functions. Pattern mode is used to play patterns and record new ones into the machine, and since this is the machine's most impressive mode, let's take a look at it first.

Patterns. There are 50 different patterns Incurred into the XR10's memory. These ROM (read-only-memory) patterns contain a wide variety of styles ranging from disco, rock, funk and "electro" to bigtime, jive, reggae, and mambo. Each pattern comes with three variations of two bars each, three types of fills (one bar each), an introduction, a break, and an ending. All told, that amounts to a grand total of 450 unique patterns.

When playing the preset patterns, you begin by selecting one of the variations and pushing the button for the introduction. When the introduction is finished playing, the machine jumps to the selected variation. When you're ready for another two-bar variation, just push the appropriate button, and when the original variation is finished, the newly selected variation will begin.

Fill patterns work in a unique way. Each fill pattern is one bar in length, but it can be called up into the variation at any time. The fill pattern begins one quarter note after one of the fill buttons has been pressed. In other words, if you select one of the three fill buttons right before the first beat of a bar, the entire fill will be heard. If you push one of the fill buttons just before the third beat, only the last two counts of the fill will be played. After playing the fill pattern, the machine will jump back automatically to playing the variation.

Break patterns are one measure riffs that keep the same basic groove as the variations, but are much less dense. Breaks, possible variations, fills, and breaks, simply hit the "end" button and a perfectly good ending comes out of the speakers.

The flexibility of moving among three different variations, fills, introductions, breaks, and endings provides a quick and easy way to create drum parts that sound pretty logical and stylistically correct. One might ask why some combinations work just fine while others are impossible. For example, you can ask the XR10 to play a fill or variation after the ending, but it won't play a break after a fill, a fill after a break, or two fill patterns in a row.

You can record your own pattern into any of 99 user locations. Real-time, as well as step-
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Manufacturer’s Response: Product Specialist jokingly replies, “Overall I think that Mr. Weisberg has done this job correctly identifying the excellent in his sound, and the variety and flexibility of the present systems in the present format of XM39. However, there are a few points which require comment. Regarding the non-sounding pin and minus buttons, the system gives the impression that entering MIDI note assignments can only be achieved by pressing them until the desired value is matched. Actually, the numbers can only be centered with the numerical keys. Also, a new software update is needed to reduce the sensitivity of the buttons in general, doing away with the double-triggering mentioned. In the review, Mr. Weisberg is critical of the XM39 user interface, citing the number of button presses, due to the lack of default values. I suggest the question of default values is a subjective point—certainly many users prefer them, but what you happen to want most of the time is not addressed by your machine’s defaults?”

TheCopy function allows you to copy any preset or User pattern to another User pattern with the same button_None. You can’t copy from one preset in the XM39, as described in the manual, with different buttons, time signatures, etc., and copy them as mould. Ideally, regarding the XM39 MIDI interface, the primary market for this unit includes transpose, tempo changes, and not so much those with more complex MIDI systems. And even the more experienced users, when the copy sound research (in terms of selection and audio quality) of the XM39 will make it an attractive addition to your system.”

Manufacturer: Meiko Digital Electronics Inc.
Address: Insight, Inc.
Fax: (718) 336-5116
Product: XM-39 Drum Machine features:
- 16 pads in digital storage
- Flexible sound editing controls
- 99 user patterns + 50 Factory patterns
- MIDI in and out
- Two footswitches, 500 beats, headphone, and effects output
- Display and step-time memory
- 20-patch capability with 99 different maps

Suggested Retail Price: $495.00
Pros: Easy to get all 97 sounds and use them in a pattern, as sound replace patterns allow you to replace the kick, snare, and tone sounds from any given pattern with those of another pad bank so you can quickly build drum patterns using the XM39’s wide variety of internal patterns. Very clean material. In-band sounds can make a great sound generator for drummers triggering sampled sounds from an acoustic or electronic kit.
Cons: More unified unlabeled functions to certain functions, tempo knob only adjusts the speed in large increments, plus minus buttons don’t work when held down, some operating procedure needs a second instruction, no MIDI input. There’s no set-to-zero capability, users patterns limited to a maximum of four measures, doesn’t receive or send MIDI. Clocks in pattern mode the pattern play mode can’t be used with a consequent in any way.

The parameters available for sound editing are very simple (many less challenging): pitch (a little over a four-octave range), fine-tuning (with 10 divisions between each half-step). 

The attack portion of the sample a little softer and less crisp at lower velocities. In addition to these parameters, the XM39 offers a simple two-stage amplitude envelope and sweep settings that can be used to bend the sound up or down in pitch.

Cool Things: There are two different “pad hands” of 15 sounds each. This means that it’s easy to get all 97 sounds and use them in a single pattern (eight voice maximum). The first five banks are factory assignment banks, but banks 6-10 can be customized to your liking.

Another truly cool feature is called “sound replace.” Using this command, you can replace the kick, snare, and tone sounds recorded into a pattern with those from another pad bank. When you do this, all of the other sounds such as Latin percussion, bass guitar, cymbals, or Choir remain the same.

Drums 1, 2, 3, 4, 5, 6, 7, 8, and 9: snare and 2, 4, 5, and 9: tom and 1, 2, 4, and the ride cymbal, hi-hats, and the bass drum.

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and three data knob folks.

If you think that's a hassle, when you decide to keep your pattern, you must save it to memory before moving into another mode or all your efforts will be lost. To save your work, just hit the edit button, roll the data knobs to select a tempo, hit enter, and then hit the yes button. Excuse me, but didn't we turn off the memory protect feature before we started recording the pattern?

There are other design and software decisions that puzzle me. The machine defaults to Omni-On, listening to MIDI channel two. This can be changed, but it cannot be memorized. In other words, anytime you want to use this box in a more complex MIDI system, you're going to have to turn off Omni and possibly change the MIDI channel. Solution? Leave the machine on forever.

Why is there no MIDI Thru port? Why is there no sync-to-tape capability? Many less expensive drum machines support clock-sync or ISK. Why are user patterns limited to a maximum of four measures? And why, oh why, doesn't the XR10 receive or send MIDI clocks in pattern mode? It means that the bi-polarity feature of the machine, in the pattern mode set with all its variations, fills, breaks, and sync off, can't be used with an external sequencer in any way.

Another oddity appeared when working with MIDI messages on the XR10. During one session, the machine wouldn't send note-off messages. I tried recording an 80-measure song into a software sequencer, and the first note sustained for 80 bars. This could create nightmares for anyone running the XR10 into a synth or sampler in order to fire additional sounds. In all fairness, this only happened once. All other times, the machine did send note-off messages perfectly. I can't be absolutely certain that the glitch wasn't in the software, but this particular program (look of the Unicorn's Performer) never exhibited this problem before.

The Verdict.
The XR10's sounds are clear, functional, and full of promise. The sound editing capabilities, while not the most extensive on the market, are fine and can be used to create many interesting timbres from the 65 factory samples. Since each sound can be assigned its own MIDI note number, the XR10 would make a great sound generator for those drummers wanting to trigger sampled sounds from an acoustic kit, or add some fresh sounds to their electronic drum kit.

Having 450 different patterns in 52 styles burned into its memory makes the XR10 a helpful partner in the songwriting process. It's been my experience that drummers are interested in creating their own patterns, while guitarists or singers are more interested in factory patterns. If you're in the market for a drum machine to be used as a sound generator, or want to experiment with the pattern factory, check out this machine. If you're looking for a complete drum machine that's logical and easy to use, has thorough MIDI implementation, and will serve your needs as your system grows, this is not the best choice in today's market.

—Norman Weinstein

ACOUSTIC DRUMS

Solid Snare Drum

SOLID PERCUSSION of Watsonville, California, has built its reputation by producing top-line solid wood snare drums. In this review we will be covering a different side of Solid's drum line, the RH400 solid wood snare drum.

Construction. The bronze shell is 5" x 14", and weighs 14 pounds. At just under 3/16" thick (.160" to be exact) this drum would not be considered thick by wooden shell standards, but it is the thickest solid metal snare drum on the market today. The thickness of the casing allows the manufacturer to machine in a precise bearing edge as well as an accurate snare bed. Most metal snare drums have thinner shells, and the bearing edge is formed by rolling the top edge over unto itself. The Solid snare drum has a 45° bearing edge from the inside to the outside. By maintaining a tight tolerance on the bearing edge they are able to achieve a greater sensitivity than most drums offer. The major benefit gained from the thinness of the shell is that the drum can play articulately at softer levels, and can be played as loud and hard as possible without losing its characteristic sound. The sound of some thinnershellied drums will tend to change as the volume increases. With Solid's drum, it felt as though no matter how hard we hit it (short of breaking the head or snare wires) there was still more headroom.

A clear hoop is applied to the shell, and the finish resembles the appearance of a cymbal. There are ten chrome-plated double-ended lugs. There are the same lugs used on Solid's wooden snare drums and they are box-shaped with sloping sides. The lugs are rounded, and the tension rod placement on the hoops are shaped like the lugs, indicating Solid's attention to the cosmetic details of the drum. At each tension rod point there is an indentation for the washers. This allows the washer to sit flat, and helps in tuning. The tension rods are stainless steel so they will not rust, and will hold threads tighter than most tension rods made of an inferior metal.

This drum definitely is built