



USER REPORT: **ROLAND MC-500**
MICROCOMPOSER

In the half-year that it's been available, Roland's newest digital sequencer has become as much an industry standard as previous MicroComposers. Which points are users likely to be happy with, and which might form the subject of software updates? Report by Steve Howell.

"IT NEVER RAINS but it pours", runs the old adage. As far as new music technology is concerned this is certainly true, as practically every week brings us anew pile of gear that we feel we simply must have. Recent new additions to this ever-growing (pre-Frankfurt) list of musical hardware come in the form of two sequencers from Japanese big-guns Yamaha and Roland, the QXS and MC-500. Strangely, the Qxs has crept in almost unannounced, while the MC-500 was heralded by much pre-release information. We published a review of the former in MT December '86, while an all-too-brief "In Brief" preview of the MC-500 appeared in E&MM August '86. Since then there's been no "review" of the Roland machine as such, principally because it's one of those devices that has to be used before it can be reported on accurately. A simple list of features and options is just not enough;

Similarities between the Qxs and the MC-500 are obvious, so this user's report (written by a QX5 owner, by the way) will sometimes be comparative; I hope you find that useful if you're planning on buying either of these machines.

The MC-500 is a disk-based MIDI sequencer. Many would applaud the fact that it is disk-based, since disks not only provide a fast and reliable storage medium for song data, they also allow for future expansion of the machine for no more than the cost of a single disk. I can't quite share their enthusiasm, though. If you're out on a session or a gig and you forget your disks (easily done, especially if you're in a rush) then your MC-500 has no operating system

and is rendered useless. And even if you remember to take your disks, it only takes one idiot to plonk them on the guitarist's 4 X 12 speaker cabinet or format them accidentally for, say, an Akai S900 sampler, and you're finished. With some form of dedicated software this would not happen and I, for one, would like to have seen some form of operating system blown into the MC-500's hardware.

Aesthetically speaking, the MC-500 is a good-looking beast in a greyish creamy blue case, and yes, it does look a lot like a cash register. For those of you who want to make room for one, it measures 12" x 3¾" x 11".

The unit's front (top?) panel splits into three main sections. On the far left are all the controls concerned with stopping, playing, recording and rewinding the MC-500's digital equivalent of a tape transport mechanism, and above these is a large, easily-read backlit LCD (another nice shade of blue). To the right of these controls is Roland's familiar Alpha dial, under which are the two cursor controls, while to the right of these are the seven keys with which you select the working mode of the unit. To the right of these is the numeric keypad.

The machine has a stated memory capacity of 25,000 notes (or MIDI events), but in practice, if you record in step time with no velocity, aftertouch or pitch-bend data, you can push this up to over 30,000 events. Internal memory is 512K RAM, and each disk can store 2Mbytes of data, which allows you to store a lot of information (about eight songs worth, in fact).

There are five tracks on which you can record – four for music and one for tempo information and rhythm tracks. Having

gotten used to using eight tracks on my trusty old MSQ-700 and newly acquired QX5, I found that a bit limiting. Anyone who's spent a significant amount of time working in eight-track recording studios would probably feel the same way.

On the rear of the MC-500 are the MIDI ins and outs, a metronome audio output and two sockets for Tape Sync In and Out.

All in all, a nice, ergonomically efficient layout that is easy to get round, and certainly a lot less fiddly than the QX5's small and overly sparse control panel.

Operation

THE MC-500 HAS five main operational modes – Mode, Function, MIDI, Edit and Microscope – each with as many as 10 "pages" which each perform a specific job. Once any mode is selected, you can scroll through the various sub-modes with the Alpha dial that is now being incorporated into almost every Roland synth and sampler; alternatively, you can type in a page number from the keypad. The latter method is generally preferable in practice, as although the dial is quicker, it's sometimes too quick for its own good: it's all too easy to miss a page accidentally when scrolling. Let's look at the facilities each of the five modes offers.

Mode – Four pages which select record status (real, step or punch in), playback modes, various disk

operations, a chain play facility (more later) and a utility option.

Function – Nine pages which, among other things, allow you to select the clock type (Internal, MIDI or Tape Sync – no Sync 24 despite the claim from Roland that it wouldn't be dispensed with), metronome resolution (a simple, possibly in-adequate eighth or 1/6th note selection), song title, rhythm track parameters, a block repeat feature, auto-stop and tempo control.

MIDI – Not surprisingly, this allows control over MIDI reception and transmission: you can select MIDI channels and filter out certain types of MIDI events such as velocity, pitch-bend, aftertouch and so on. You can also select which of the MIDI sockets the clock will appear at a software Thru option where the MIDI Outs (there are two) double as MIDI Thrus – a MIDI merge facility of sorts.

Edit – Ten pages which allow you to apply options such as erase, delete, copy, insert and transpose to one or more measures. You can also change MIDI channels as well as extract, merge and change velocity. **Microscope** – This mode allows you to scan through your music event-by-event, to insert, delete, and/or change individual note data.

Now, all these features would be useless if the MC-500 were difficult to use. I'm happy to say that this is not the case. A unit as powerful as this is going to be fairly complicated, but so long as you sit down with it and the (very) comprehensive manual for a few days before you attempt any serious work, you should be fairly comfortable working with it.

Once the MC-500's operating system is booted up from disk, you can begin work. Sadly, a few things have to be done before you can really get started. First, the default system setting for the MIDI Clock Out is "Off", which means that if you intend to use a drum machine as a metronome during real-time recording, you need to go into "MIDI" and set one of the MIDI outputs to send out clock information. While you're in this mode, you have to make sure that memory-intensive features such as aftertouch, velocity and the like are off if you don't intend using them in the piece. And if you're using a mother keyboard of some form to drive a MIDI synth or sampling module, you need to turn "Software Thru" to "On".

This is where the QX5 scores in that its default settings are a lot more sensible, while any changes you make to them are remembered when you switch the machine off, and you can, in fact, store a total of four different setups for instant recall at any time. If, like me, you use a sequencer as a musical sketchpad for those three-in-the-morning bursts of inspiration, the last thing you want to do is to spend ten minutes (plenty of time to forget that great idea you had) setting the thing up...

Once you've set up the MC-500 according to your needs, you're ready to record. The first option is Real-Time, where anything you play is faithfully captured in memory, mistakes and all. You can initiate recording by pressing Rec/Load and then Play, whereupon you get a two-bar count-in and you're away. Alternatively, you can use a footswitch to set the wheels in motion.

The other method of starting the recording process is in Auto mode, where the MC-500 waits until you play a note before going into record. I can't find a great deal of use for the latter method, but I'm sure someone will, so it's nice to have around.

Step-Time recording is selected by moving the cursor to the appropriate part of the display and scrolling through the recording options with the Alpha dial. Having done that, Red/Load and Play starts the procedure, and the MC-500 waits for notes to be played on the keyboard. Naturally, timing in this mode is not important, as all you're loading is pitch data. Resolution is selectable between minims and hemidemisquavers (or between half-notes and 64th-notes if you speak American) and includes triplet times.

Rests and tied notes are input by pressing Shift and either of the cursor controls, which is a bit of a pain until you get used to it (which doesn't take too long).

Chords and velocity information can be input in step time, but other MIDI information must be overdubbed in real-time. Your MIDI keyboard, the Alpha dial and the keypad can all be used simultaneously for data input, which gives you a lot of control over your music.

Punch-in recording is another real-time entry method which allows you to specify where recording will begin. Unfortunately (and unlike the QX5), the MC-500 doesn't offer a punch-out point, so anything you record after the punch-in point erases anything that was there before. This precludes using this mode of entry for repairing a single naff bar. Shame.

Rhythms

IN ALL THESE modes, the MC-500's rhythm track fills up with measure information. You can think of the Rhythm Track as an internal sync code for the four music tracks – without it the tracks won't play, and as soon as it stops short, so will the music. Normally this is not a problem, but it can be in Edit mode. Say, for example, you record a simple four-bar bassline. As the tune is a simple one, you need only to copy it a few times (maybe with some transposition) and your bassline will be complete. So off you go and do this, only to find that it hasn't worked. The reason is that unless there is measure information in the rhythm track, you can't copy any music data en another track. In this case,

because you have only four bars of information, all your copying and transposition hasn't registered.

The way around this is to write an arbitrary number of bars into the rhythm track (say 200), so you know you'll have enough measure information to accommodate any editing. A bit like going via Edinburgh to get from London to Oxford. The MC-500's rhythm track is much more than a simple sync code, though. In it, you can actually program drum patterns for each song, and as these patterns are then chained together just as though they were written on a drum machine, you don't use up much memory.

This is a neat idea, not least because it allows you to store music and rhythmic accompaniment on one disk. The rhythm track is unquestionably a powerful and expressive method of running a drum machine, as it allows you to play up to 32 drum voices, each with eight levels of definable dynamics. You can assign any of the drum voices to be on any MIDI note number and channel. And because the whole thing is being run from one clock, you eliminate the MIDI clock delays that spring up on occasions.

It has to be said, though, that the method of rhythm programming, the MC-500 forces you to adopt is far and away the most cumbersome I've ever encountered. You can work on only one drum at a time and only one bar at a time, and you have to enter each drum beat by typing in a number from 1-8 on the keypad at the step that you want to hear it. You can't hear drum parts until you've actually written them in, so you can't hear drums in combination until that time, either. True, you have variable resolution, a wide range of expressive dynamics plus a flam facility. But those options aren't enough to disguise a method of inputting drum tracks that is simply too tedious to be viable. Couple this with the fact that you need a drum machine as a source of drum sounds (unless you're using a sampler) and the usefulness of it all starts to become a little obscure. Personally, I'd rather just sync up a drum machine and take advantage of its real-time input features. Driving drum voices from a well-programmed track from the MC-500 is very, very impressive, but... Anyway, once you've got something into your MC-500, then providing you have sufficient information in your tempo track, you can enter Edit and copy, insert, delete and otherwise mess around with data. It's in this mode that you can merge two tracks onto one to make room for further overdubs. If you do this and suddenly feel that the bassline you recorded on MIDI channel 1 isn't right, you can use a command called "Extract MIDI Channel", which allows you to

remove a specified MIDI channel from a merged track and plonk it on another track (where it can be edited or replaced) and then merge it back again. But if your bassline is on the same MIDI channel as your chordal part (easy enough in complex poly sequences), you're stuck. By contrast, the QX5 has a useful feature that allows you to remove notes that fall within a specified range.

In Edit mode you can also reassign MIDI channels, change velocity (a very powerful form of digital compression) and quantise. Eleven out of ten for the last option, which simply moves notes to the nearest resolution point and leaves timings intact – unlike any other sequencer (QX5 included) that I know of.

The Microscope mode allows you to scan through notes as individual events and then change, delete, insert and otherwise modify single events such as pitch, step time, note length, and gate time (ie. if it's staccato, "normal", legato or anywhere in between). Because data in the MC-500 is usually polyphonic, rotating the dial to scroll through the piece actually arpeggiates the notes, so you have to have a good idea of where you are. But this is standard for all such sequencers and you soon get used to it.

Microscope mode also enables you to insert program changes, poly and mono aftertouch, pitch-bends, System Exclusive requests and so forth.

Interfacing

ALL IN ALL, then, some very powerful editing features – though again, one missing feature that can be found on the QX5 is Clock Move, which allows you to shift tracks back and forth in time against other tracks. This is useful not only for Steve Reich impersonations and echo effects, but also for affecting the feel of any piece (giving lazy-sounding music an extra edge, for example).

Back on the Roland, we find tempo changes can be easily inserted into a piece in either step or real time on the tempo track, and can be altered at any time. Any tempo changes you may enter into the MC-500 are output through the Tape Sync Out, and any overdubs onto tape follow the programmed tempo changes.

The MC-500 also implements MIDI song pointers, so that if you sync it to tape via SMPTE, you can start the tape at any point and the MC-500 will know exactly where it is in the song and will start up from that point. To be honest, though, the FSK Tape Sync is very reliable, so I wouldn't rush out and buy a whole lot of SMPTE gear unless your situation demands it.

Other features I've alluded to include Block Repeat, which allows you to cycle over a pre-determined number of

bars over which you can rehearse or work out new parts – but you can't actually record in this mode and build up complex sequencers as you could on the old Linn 9000. The Auto-Stop facility, when switched in, won't allow you to record further than the data on another track, which is very handy.

And finally, we have the disk drive. This is a bog standard, 3.5-inch job and can hold a lot of data. Songs can be stored, verified and loaded very quickly, though the exact time it takes depends on the length and complexity of your tune.

There are some points to watch out for, though. Before you can save your latest composition to disk, that disk must be formatted. To do this, you must enter "Utility", which /crazily) wipes out the MC-500's entire memory. The moral?!

Be sure to format your disk(s) before you start work. This state of affairs is thoroughly ridiculous and totally inexcusable: if Akai can let you format disks on their S900 sampler without destroying the internal memory, then I see no reason why Roland can't do the same on the MC-500.

And in a similar vein, it's a good idea to keep saving data onto disk every 10 minutes or so while you're working, as the MC-500 won't keep memory intact in the event of an accidental power loss.

There's a Chain Play facility in Disk mode, but this is not a chaining option in the tradition of drum machines (or indeed the old Roland MSQ-700) with which verses, choruses, middle eights, intros and so on can be assembled into any order to form a song. It is, in fact, a way of arranging up to eight whole songs in a running order for live work. Useful enough, but open to misinterpretation by many users, I'd have thought.

Verdict

YET DESPITE THE criticisms I've levelled at the MC-500 in the course of this report, I'm actually very impressed with it. It's an incredibly powerful piece of technology, and should satisfy the demands of pro and semi-pro users for years to come, particularly if the promised software updates come cheap enough and flexible enough.

My criticisms are aimed at stupid little things which, had they been given a bit more thought, would have made the Roland MC-500 even better than it already is. It's simply that the implementation of some MC-500 features is a bit too long-winded to make them really straight-forward to use.

For my own purposes, Yamaha's Qx5 has the edge over MC-500 in terms of sheer flexibility. Yet the Roland is more likely to become the industry standard (correction: it's already well on the way towards attaining that status). Why? Because in layout is more logical, the feel of its switches and controls more positive (though I could live without the Alpha dial), and its display more informative.

And because, even though it costs significantly more than the QX5, the Roland's open-ended design is worth a lot in these days of planned obsolescence and -ever-expanding technological horizons.

Price £999 including VAT

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