Manley MicMAID

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Mic & Preamp Switcher

The patchbay remains the cornerstone of most commercial studios, but using one to patch mics into different preamps can be risky — which is where the MicMAID comes in...

Finding that perfect combination of microphone and mic preamp has always involved a tedious process of patching and re-patching cables, and quick A-B comparisons have always been impossible without access to duplicate mics and preamps. However, all that has changed with the introduction of Manley's MicMAID mic-preamp matrix switcher. For those who were wondering, I'm told that the MAID aspect of the product's name is short for 'my assistant is dead'!

Concept & Construction

In essence, the MicMAID is a simple, 4x4 relay switcher that allows up to four microphones to be routed to any of up to four mic preamps at the touch of a button. Built-in monitoring facilities with level-balancing options and store/recall memories for favourite combinations are also provided, as is a DI input complete with variable phase alignment facilities.

The MicMAID is housed in a 2U-high rackmount case, which extends a surprisingly deep 250mm behind its rack ears. The rear panel is awash with XLR connectors. Four female XLRs accept the inputs from four microphones, to feed

the entirely passive relay switching matrix (phantom power can be provided — more on that in a moment) and four male XLRs provide the matrix outputs, which need to be connected to the four external outboard preamps. In addition, four pairs of male/female XLRs accept the outputs from the four outboard mic preamps and provide direct loop-through feeds. These would normally be passed onto a DAW interface or recorder, to allow all four preamp outputs to be recorded independently, while simultaneously allowing the internal monitoring system to eavesdrop on those preamp outputs.

The only connection supplied by active electronics is a male XLR providing the output of the built-in monitoring/record section (more below). There is also an IEC mains inlet complete with integrated fuse-holder and on-off switch. The

This could be used to ride the level up and down during a take, in that traditional 'old-school' way. It is an unbalanced connection, wired with the tip connection sending the signal to the fader and the return on the ring connection, with the sleeve providing the screen and ground reference.

The second control is also associated with the instrument input, and is equipped with three illuminated blue buttons, which introduce a polarity inversion, enable the variable phase feature, and switch it to a high-frequency range. A rotary control adjusts the variable-phase processor, which feeds the monitoring section only.

to each of the four mics. To avoid any risk of switching clicks, or inadvertently sending phantom power to a microphone that doesn't like it, the MicMAID uses DC-blocking capacitors at each microphone connection, isolating the mic from the relay matrix and any connected preamps. For those microphones that do require phantom power, it can be provided from the MicMAID itself by holding down the appropriate white phantom-power button (which starts flashing), and then pressing the corresponding Mic selection button. The white button remains illuminated to warn of the presence of phantom power.

The external microphone preamps

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The high-frequency-range button resets the centre frequency of the all-pass filter, which provides the variable phase functionality to help optimise the range of frequencies affected. Low range is generally better for LF instruments and high for full-range sources.

The next control section is the microphone switching matrix itself, with four illuminated blue buttons across the top of a 4x4 grid for selecting the microphone sources. An additional button allows the first mic input to be replaced with the front-panel instrument input, while four more blue buttons in a column to the right determine the preamp routing destinations, as well as selecting the preamp sources for the monitoring section. The routing process is to select a preamp destination and then allocate the required mic using the blue buttons — and a single microphone can be routed to all four preamps, if required. The established relay cross-points are indicated by the central grid of blue LEDs, and a red illuminated button is used to lock the current routing selection. This button flashes if any attempt is made to change a locked route: locked routes have to be unlocked by pressing the button again.

Four white, illuminated buttons across the bottom of the grid indicate when phantom power is being supplied

should be configured *not* to supply phantom power, and if the MicMAID detects it on any of the preamp connections, a warning message of 'bP' (bad phantom) is presented in the display window to the right of the matrix, and the preamp selection button for the offending preamp channel blinks. If a microphone was routed to that preamp, the route is automatically disconnected to avoid clicks or the risk of damage.

The last control section to the right is associated with configuring the MicMAID and controlling the monitoring section. A simple LED display provides configuration messages and monitoring level values, while a detented rotary encoder with a press-switch function enables menu navigation and parameter adjustment.

Active Listening

The monitoring section has a fairly elaborate signal path. The selected preamp signal feeds a balanced input stage and a polarity inversion facility, before it is converted to an unbalanced signal to feed the vari-phase section and the external fader insert point. An electronic balancing stage then feeds the programmable volume control, followed by the output driver and the rear-panel monitoring output XLR.

This section is the only active part of the MicMAID, and the currently selected

operating voltage is set at the factory. Internal construction is very neat and tidy, using mostly surface-mount components and op-amps, plus lots of gold-contact sealed relays, with phantom blocking capacitors between the mic inputs and the relay matrix.

The only slightly disappointing aspect of the review unit's construction was that the drilled metal lid rattled, because it was held in place by slightly oversized slots on three sides, with a single screw at the back. I doubt this would be an issue when the unit is rackmounted, but it did cause some frustration during my review.

Hands On

The front panel is laid out in four distinct sections. To the left is an instrument input section with three quarter-inch sockets. The first two provide a high-impedance, transformer-coupled instrument input with a direct link-through socket to feed an amplifier. A toggle switch allows the link ground to be lifted if necessary. The third quarter-inch socket is for connection of an optional external remote fader for controlling the monitoring section output level.

As you'd expect from a device of this type, the rear panel offers quite a set of analogue inputs and outputs, plus a power inlet and on-off switch.

» preamp feeds the monitor output, via the variphase facility (if enabled). The monitoring path gain can be adjusted over a ±19.5dB range in 0.5dB steps, and different gain levels are remembered and instantly recalled for each of the 16 possible mic/preamp combinations. The variable phase processing only becomes audible and effective when auditioning the monitoring output together with the output of another preamp. The idea is to help create a time-alignment effect between a DI input and a miked guitar amplifier.

Ten 'snapshots' of favourite routing schemes can also be stored, recalling the status of all button-controlled settings (including the routing matrix) and monitoring gain trims. However, the phantom power settings are not remembered or restored, to avoid accidentally damaging a mic with phantom power. Snapshot zero is a read-only memory that sets the factory default configuration of no routes, unity gain and no route locks, and when the MicMAID is powered it loads this snapshot automatically.

On The Menu

There are six choices for configuring the MicMAID, which are accessed by pressing the rotary encoder and then dialling around to the required menu, indicated by a double letter combination in the LED display window. AS means 'Add Snapshot', LS is 'Load Snapshot' and CS is 'Clear Snapshot', while Br is used to access the display brightness parameter (three levels). Two further menu options are labelled Pi and Po, which mean 'pickle inputs' and 'pickle outputs' — and although these functions are not currently active, they cater for a future option to remotely cycle through all the possible mic and preamp selections.

The Add, Load and Clear Snapshot menus are intuitive to use. Pressing the encoder button when the required menu page is displayed enters that menu. The Add and Load menus are indicated by a letter and number — A1 to A0 or L0 to L9 — and using the encoder to locate the required memory number, then pressing the encoder again, saves or loads the required snapshot. If no action is taken, the menu system times out after a short while. A Clear Snapshot mode erases all snapshots in a global memory wipe (individual memories can be overwritten with the Add function).

MAID In Heaven?

The MicMAID is a brilliantly thought-out product with two primary target user groups. The first is people wanting to compare mic and preamp combinations quickly and easily with the minimum of fuss, while the second is those who have a limited number of mics and outboard preamps, but want a convenient way of routing signals between them without a physical patch panel.

The gold-plated, sealed relays and direct XLR connections ensure negligible quality loss for signals passing through the MicMAID — I certainly couldn't hear or measure any degradation — and the local provision of phantom power makes total sense. The sensing and warning of external phantom power works flawlessly, as does the route-locking mode. As a simple mic router, the MicMAID works perfectly and very intuitively.

The monitoring section also performs to very high standards, with excellent sound quality and negligible impact on the pass-through preamp outputs. The ability to set and recall gain offsets for different mic/preamp combinations makes comparing mics and preamps a breeze, and it's very easy to adjust gain settings quickly on the fly. The menu system is a little clunky, but simple enough, and the snapshot facility is, again, very welcome.

The instrument input and variphase feature feels a little bit like an afterthought, but is a useful facility in the right circumstances — just as it is in the Audient Mico dual mic preamp. For anyone who likes to combine a DI output and a miked amp cabinet, the vari-phase mode certainly helps to optimise the time-delay colouration in a musically helpful way, although in some cases it might be a bit of a fiddle to have to arrange to record the monitor output signal along with the output of the corresponding cabinet mic. I can't help thinking that it would have been more useful to be able to switch the variphase processor into the corresponding preamp output feed. However, this is a minor inconvenience in the grand scheme of things. Having said that, a version of the MicMAID without the DI input and variphase facilities, at a lower cost, might be a more attractive option for many.

Overall, I was very impressed with the quality, ease of use and flexibility of the MicMAID. It's a most unusual product, but I suspect that if you bought one, you would soon start to wonder how you ever managed without it! ▰▰▰