

# minimonsta<sup>Ω</sup>



User Manual - 11/01/2005

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## Minimum System Requirements:

### PC

64 MB of system memory; Pentium-class CPU. Pentium4 recommended.  
Win98 (98, NT4, ME, 2000, XP). Minimum screen resolution 1024x768.

VST or RTAS instrument-compatible host program.

Minimonsta is optimized for 3dNow! and SSE instruction sets.

### MAC

G4 1GHz.

Dual G5 1.8GHz recommended.

256 MBytes of total system memory.

VST, RTAS or AudioUnit instrument-compatible host program.

Minimonsta is optimized for AltiVec instruction sets.

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This logo represents the Melohman feature set, a unique set of performance controls by Ohm Force. Wherever you see this logo it refers to the Melohman feature set.

## 1 Mini-Morphosis

Prior to 1970, it's fair to say that synthesisers were mostly giant modular monsters, more suited to a luxury recording studio or laboratory than being transported from stage to stage. The problems with lugging around a beast of this nature were many as GMEDIA Music's Chris Macleod remembers from his days as Keith Emerson's 'grunt'.

"Lugging the Moog around was a bloody nightmare, especially as it was only used for one or two sounds in the show. It was always breaking down to the extent we took along a dedicated Moog technician, who we nicknamed 'Mr Diode Head'. I know it was all part of Keith's performance but frankly, I couldn't wait to see the ass-end of it. As a result my back still suffers today and at the penultimate gig I put a big sign on it saying FOR SALE - OWNER LEAVING PLANET, much to everyone's amusement"

Of course in 1970 there was already one portable synthesiser, the EMS VCS3, but this still largely clung to its academic apron strings. Clearly, if the synthesiser were to become a mainstream instrument then a portable solution based around the needs of a musician would have to be found.

The first hint of this was the pre-production Minimoog Model A, which largely consisted of a basic collection of modules plundered from the modular instruments and which still needed basic patch-cords for routing. This was further refined, initially, to the single panel and switch routed Model B and then to the Model C, which introduced the hinged back. These prototypes ultimately lead to the production Model D but to get that far was not as straightforward as you might believe.

Due to the success of the modular instruments, Bob Moog was an in-demand speaker and synth demonstrator, and before departing for a few weeks on the road he authorised the production of ten more Model C's. However, no doubt due to the expense involved, he specifically stated that no printed circuit boards were to be used in this small production run.

According to one of the designers, Jim Scott, as soon as Bob left most of the staff got together and argued that unless they got the instrument to a point where it could be manufactured, they'd probably be out of work in the not too distant future. So it was agreed that they would disregard Bob's orders and build the instruments using PCBs. On his return, Bob found several instruments in assorted stages of completion and immediately called everyone into his office demanding to know who was responsible?

According to Jim, "No one said a word and we did a lot of observing our fingernails and such. He couldn't very well fire his whole staff, so the first ever run of D Models was completed."

The Model D Minimoog was the version that saw release in 1970 and for musicians all over the world the synthesiser had truly arrived. So, too, had many of the things that players would soon take for granted. For example, those vertical pitch and modulation wheels became pretty much standard fare, as did everyone's desire for a 24dB/oct lowpass filter. And that's where the Minimoog really shone - with both its playability and its sound.

Countless musicians quickly adopted it: From early pioneers such as Rick Wakeman, Keith Emerson & Chick Corea, through to latter-day explorers like Gary Numan & Adrian Utley. And although the Mini ceased production in 1981, a quick glance at its user base reveals a Who's Who of contemporary music.

Rick Wakeman reveals, "The Minimoog is my favorite synthesiser of all-time and at one point I had nine of them with each sounding slightly different. The first one I owned cost me £35 from the actor Jack Wilde. It should have been about £1200 but Jack told me he had bought it about two weeks previously, that it didn't work properly and he wanted rid of it. I figured that it would cost less than £1200 to get it fixed so I collected it, took it home, turned it on and couldn't find anything wrong with it. I called him up and told him it was fine but he said that it was definitely faulty because it wouldn't play more than one note at a time. That was a fairly common misunderstanding back then."

There were, however, more genuine problems with early models as Rick once again explains.

"The obvious nightmare was the tuning instability and I kid you not, sometimes when we used the Minimoog live, we were lucky to be able to play it at all because, pitch-wise, it was literally all over the place. Also a less well-known fact was that the Mk 1 used to suffer from radio interference. I remember playing one show at Alexandra Palace in front of twenty thousand people, and just as we were about to start all you could hear through the PA was, 'Arsenal 2 - Wolverhampton Wanderers 1'. It was hilarious."

Teething troubles aside though, the portability, the sound and the immediacy of the controls made the instrument essential for any touring keyboard player and it couldn't fail to be anything but a huge commercial success.

During its life approximately 13,000 were made and it remains one of the world's

most loved electronic instruments to this day.

The Minimonsta is based on our much-loved early Minimoog (serial number 1794), chosen because it represents all that was best about the hallmark Mini sound, namely, a super fat filter, snappy envelopes and those distinctive effervescent and rich tones. In keeping with Rick Wakeman's statement, all Minimoogs did indeed sound slightly different and this is evident in our Mini in a couple of ways. Firstly, the oscillators were the less-stable earlier ones, liable to drift at the drop of a hat. Secondly, the filter emphasis kicked in sooner than on later versions. However, while it was important to stabilize the oscillator tuning we felt it was important to remain true to our instrument's filter and not iron any of the personality out of it.

Nonetheless, we feel it's good to take risks and after the successes of the faithful Oddity and more daring impOScar, we began to look at how we could do justice to such an icon, while at the same time adding features that could take it into very different sonic territory. Several ideas were discussed but nothing sat in harmony with the ethos of the original instrument until a meeting with Oddity co-conspirators, Ohm Force. This proved to be the pivotal moment and after witnessing their Symptohm Melohman synth, a joint venture was agreed. Soon after, the Melohman functionality was witnessed in all its glory on an early alpha version of the Minimonsta and we all began to salivate at the potential of this expressive intricacy sitting in tandem with the simple operation of the original instrument.

## Ω MELOHMAN - THE CONCEPT.

Ohm Force's Melohman feature set is based around an interactive set of tools that transform the playing experience of a software instrument via unique and inspirational concepts. In essence it offers a user-defined octave that can be used to trigger timed or instantaneous morphs between up to twelve Patches. The morph modes are Morphing, Morph Back & Forth, Morph Sequence, Mutate and Partial Mutate. In terms of playability, this goes a considerable way to countering the argument that software synthesisers are not expressive enough in performance due to the inherent lack of a dedicated tactile interface.

Then there's the famous Ohm Force feature of applying an additional LFO or ADSR to almost every parameter. This gives nigh-on unlimited sound design capabilities ranging from the sublime to the downright disturbed, as well as helping to circumnavigate limitations of the original instrument, such as having to lose the third oscillator to the LFO.

During development, the Minimonsta, in much the same way as the original instrument, underwent several revisions and even invoked a couple of near mutinies. But as the instrument progressed, we all began to realise that we'd created far more than a simple emulation - we'd created a Monster and from that moment the name of the synth was born.

The name Minimonsta also encapsulates the instrument because it operates on two distinct levels. Firstly, it can operate as a straightforward but highly accurate emulation of the original Mini by way of the familiar and intuitive user interface. In this mode you could largely ignore the upper section of the GUI containing the LFO, XADSR and MIDI sections and instead focus on the familiar controls and the creation of all manner of authentic Mini tones with the minimum of effort.

At its second level though, the Mini becomes a true Monster by way of the additional LFO, ADSR and dynamic MIDI controllability for every main GUI parameter. Unparalleled real-time sound mangling via the Melohman Patch Morphing options, and a plethora of triggering options including Monophonic, Polyphonic, Legato and Unison modes.

An enormous amount of care and work has gone into making sure all these elements have collided to ensure an authentic Mini tone meets a weapons-grade monster, and we sincerely hope you enjoy this instrument and make serious creative use of its unique functionality and sublime tones. The two years of development has left no stone unturned in the pursuit of sonic excellence and rest assured that no one has spent any time looking at their fingernails or gazing at their navels.

## 2 The GForce Team.

### An Appeal - Please support developers, not copyright theft.

If you're reading this from the pdf manual, the chances are you paid for this software and as such we'd like to say a heartfelt thanks. The money that we receive from sales of the Minimonsta will be put back into further development projects and used to create other interesting and valid musical products. However, if you did not pay for this instrument please try and understand the implications of piracy for small companies such as ours. Piracy is seriously damaging to small software companies and with the abundance of free instruments available there is no excuse for this kind of theft. As musicians ourselves, we respect anyone who creates good music using limited tools, far more than those who make average music using every

tool in existence. Pick your tools wisely and learn them well – this is far more creative and rewarding.

From our perspective, this product took almost two years to produce and has involved the small development team in many personal and financial sacrifices. Nonetheless we have tried to keep the cost of the instrument at an affordable level and make the copy protection as unobtrusive as possible. We will not hesitate to prosecute anyone who infringes our copyright but we would prefer to kindly ask you not to post the Minimonsta on any newsgroup or P2P group and to respect our work. Many thanks.

#### **Mini web resources.**

[www.moogarchives.com](http://www.moogarchives.com)

[www.sonicstate.com/synth/moogmini.cfm](http://www.sonicstate.com/synth/moogmini.cfm)

[http://groups.yahoo.com/group/The\\_Lords\\_of\\_the\\_Mini](http://groups.yahoo.com/group/The_Lords_of_the_Mini)

#### **Mini book resources.**

A-Z of Analogue Synthesisers (Part One. A - M) - Pete Forrest

Vintage Synthesisers - Mark Vail.

Analog Days - Frank Trocco & Trevor Pinch

#### **Developed by:**

Ohm Force and GMEDIA Music as GForce.

Laurent de Soras, Jerome Noel, Raphael Dinge, Grégory Makles, Dave Spiers

Chris Macleod, Ian Legge and a supporting cast of many more.

#### **Thanks to:**

Angus Hewlett, Flemming Bloch, Lee Groves, Matt Hooper, Jay Ahern, Ellis Breen, Bruce Satinover, Phil Hartnol, Dave Goodwin, Robin Rimbaud, Darren Price, Marius DeVries, James Towler, Steve Winwood, Art Gillespie, Pascal Gabriel, Geoff Downes, Frank Hoffmann, Nick Batt, Meffy Ellis, Putte, Malcolm Corbett, Mr Smith & Mr Hyde, Orren Merton. Uwe Bauer, Rick Wakeman.

#### **Sound Design.**

Dave Spiers, Rick Wakeman, Chris Macleod, Davy Blakely, Huston Singletary, Howard Scarr, Hans-Jorg Schleffler, Matt Hooper, Brian Desmond, Markus Hastreiter, Brice Duncan, Andreas Ehrhardt, Rory Dow, Geoff Downes, Phil Hartnol, Steve Winwood, Marius DeVries, Pascal Gabriel & Lee Groves.

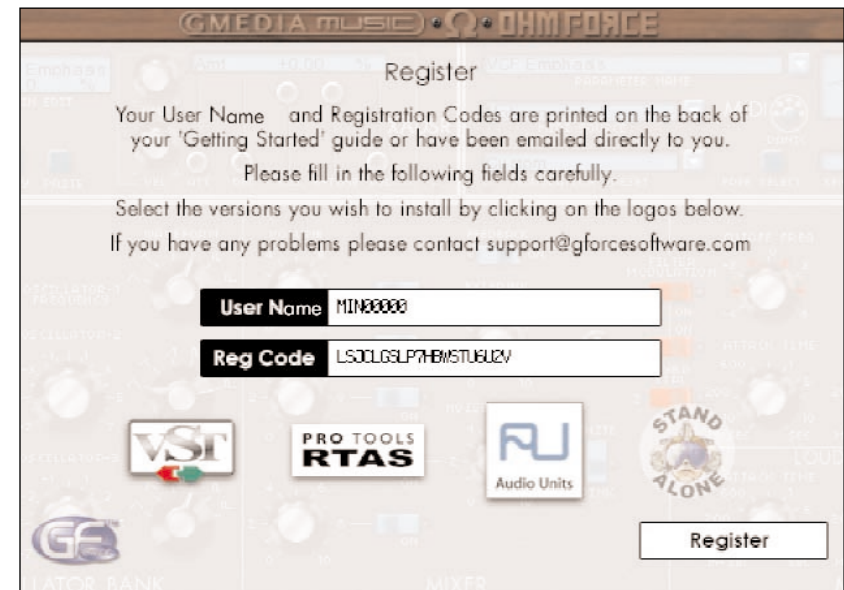
### **3 Installing the Minimonsta**

Included on the Master CD are multiple versions of the Minimonsta.

The Minimonsta installer allows you to install any or all versions via a single installer; one for Mac and one for PC. Insert the Minimonsta Master CD into your CD ROM drive and select the Minimonsta installer applicable to your machine type, PC or Mac.

Please follow the on-screen instructions carefully entering your unique User Name and Registration codes EXACTLY as you find them printed within your "Getting Started" guide or from the email you received after purchase.

Finally, launch the plug-in host and load the Minimonsta into an instrument channel. (see Loading a Meta-Patch on page 10)



*Mac installer shown.*

### **4 Registration**

Please take the time to register your Minimonsta on-line at:  
[www.gforcesoftware.com](http://www.gforcesoftware.com)

Registration is required to receive free technical support.

## 5 Quick Start

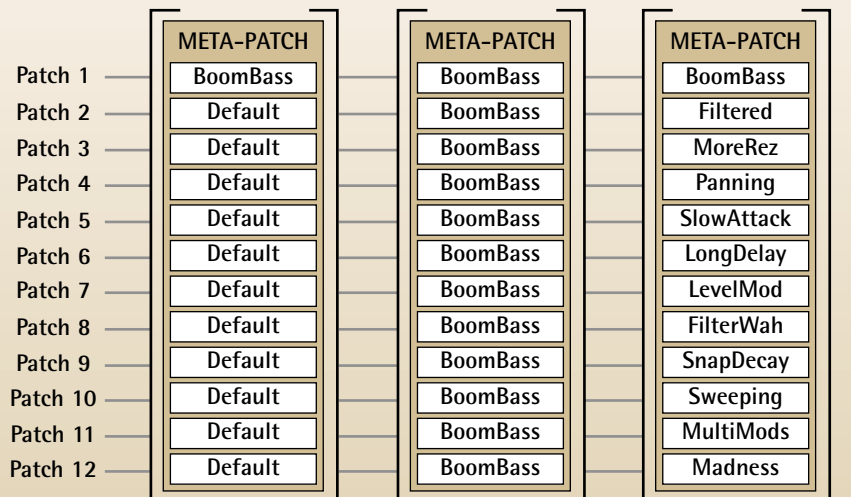
Let's face it, reading a manual from cover to cover isn't much fun. Most of the time when you buy a synth you just want to get started immediately and discover things as you progress. Because the Minimonsta works on two levels, provided you have a fundamental grasp of subtractive synthesis, it's quick and easy to get going before delving in to the more complex functions of the instrument. However there are a few things that are useful to learn from the off.

### Patch Structure – What is a Meta-Patch?

The Meta-Patch is a group of up to 12 Patches (sounds) that you load from your hard drive. At its simplest, it contains only a single Patch and at its most complex 12 different Patches. All Meta-Patches supplied with the Minimonsta contain 12 different Patches except the ones within the OriginalMiniPatches folder which contain a single sound across all Patches. These sounds were transcribed from original Minimoog patch charts.

#### META-PATCH

A Meta-Patch is a group of up to 12 Patches (sounds)



A Meta-Patch containing a single Patch

A Meta-Patch consisting of 12 identical Patches

A Meta-Patch consisting of 12 Patches, each being a variant of Patch 1

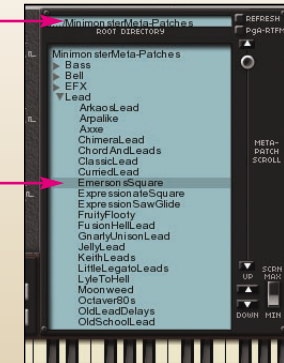
### Loading a Meta-Patch

The first time you open the Minimonsta, after installing it, open the Meta-Patch Select Window to it's maximum size via the dedicated rocker switch.



Meta-Patch Select Window

From here click in the small top window marked Root Directory



Meta-Patch Select Window shown at maximum size

Navigate it to the MinimonstaPatches folder. Once you've done this you simply select a sound from the list and play.

Your selected Root Directory will be remembered by the Minimonsta when you open it subsequently.

### Flying Knobs

With this feature you can grab and throw the knob of most main GUI parameters and make it move automatically, through its range, to its highest or lowest setting. To make this work simply click and hold on the highest or lowest text marking around the base of the knob and throw to the right to increase that parameter's value, or throw to the left to decrease the value. The faster you throw, the quicker the knob moves.

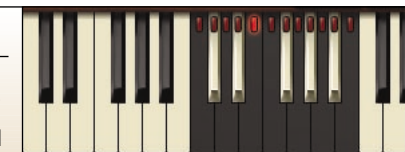


NB: This does not work with the Oscillator Range and Waveform Knobs.

### Melohman Octave



The Melohman Octave is used for real-time performance functions and can be assigned to any octave of the Minimonsta's keyboard range. It is also directly associated with the control knobs to the right-hand side of the keyboard. For further details see the Morphing Section on page 28.





## 6 Minimonsta – Patch Management (See also page 25)

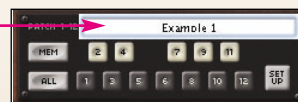
### Meta-Patch

As mentioned before, a Meta-Patch is a group of up to 12 Patches that you load from your hard drive.

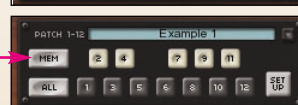
The Minimonsta works as following: having loaded a Meta-Patch you can select or morph between its Patches in a variety of ways. Let's start by looking at how to create a Meta-Patch with the same sound across all its Patches.

1) Create a sound on the Minimonsta that you would like to keep.

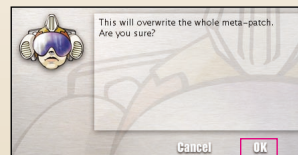
2) Click on the Patch window and name your sound.



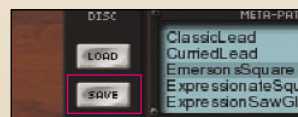
3) Click the MEM button – it will be illuminated red.



4) Click the ALL button – this assigns your sound to all Patch memories. A window asking if you are sure you want to overwrite all your patches will appear. Click OK. (Mac window shown).



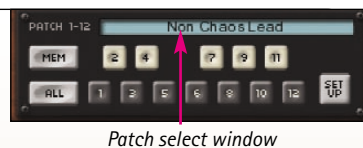
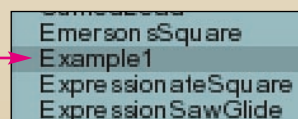
5) Click on the SAVE button to the left of the Meta-Patch Window, navigate to your Root Directory then name and save the Meta-Patch to disc.



**IMPORTANT: YOU MUST SAVE TO DISC BEFORE SELECTING ANOTHER META-PATCH OR YOUR NEW SOUND WILL BE LOST.**

Having saved your Meta-Patch you will now be able to see and select it from within the Meta-Patch Select Window.

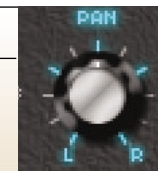
(For a more in-depth explanation of Patch Management see Tutorial 5, page 47)



Patch select window

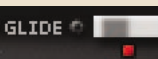
### BLUE HIGHLIGHTS

Whenever a parameter name and position indicators are lit in **BLUE** this indicates that the parameter is being modulated by the additional Minimonsta LFO and/or XADSR.



### RED HIGHLIGHTS

Whenever parameter positional indicators are lit in **RED** this indicates that the parameter is being controlled (modulated) by MIDI. This is also applicable wherever you see an LED.



### BLUE AND RED HIGHLIGHTS

Whenever a parameter is lit in **BLUE AND RED** this indicates that the parameter is being modulated (controlled) by both the LFO/XADSR and MIDI.



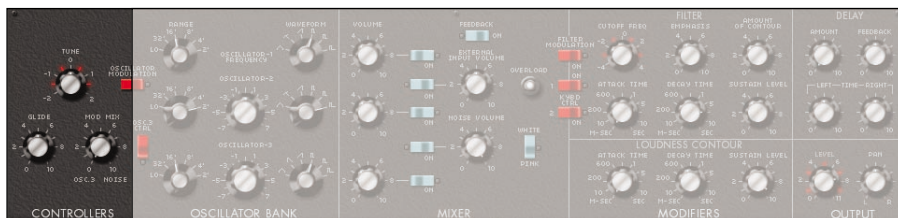
### GREYED-OUT LFO AND XADSR

Certain parameters cannot be modulated by the Minimonsta's additional LFO and XADSR, for example the Oscillator Wave Form Select Knobs. When this is the case the LFO/XADSR section is greyed-out, and "No Modulation" appears in the displays.



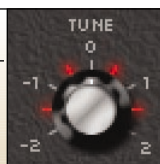
## 7 Mini Controls

### THE CONTROLLERS PANEL



#### Tune Knob

This sets the global tuning for the Minimonsta oscillators from anywhere between -12 and +12 semitones. To return to the default setting at any time, simply double-click on the knob.



#### Glide Knob

When used in conjunction with the Glide On/Off Switch this sets the glide time. Like the original instrument, the Minimonsta's portamento is Time Constant, which means that glides are faster over larger intervals.



#### Mod Mix Knob

When Oscillator 3 is used as an LFO this knob determines the mix between the oscillator tone and noise. Noise can be either Pink or White and is selected by a switch in the Mixer Section.

**NB** To hear any modulation mix settings the modulation wheel on the left of the keyboard should be pushed forward.



### Oscillator Modulation Switch

Sets the Oscillator 3 Modulation to On or Off. (wondering what the LED is? See page 12, Red Highlights)



### THE OSCILLATOR BANK

As per the original instrument there are three oscillators on the Minimonsta and the flow of each one is laid out horizontally. The only real differences between them is that Oscillator 1 does not have control over its fine tune and Oscillator 3 can be used as an LFO. Oscillator 3 also substitutes the sawtooth-triangular waveform for a reverse-sawtooth waveform.

#### Oscillator 1 Range Selector

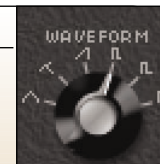
This selects the octave for the Oscillator 1 tone. Octaves are selected in feet (as in the length of an organ pipe) 2' is the highest and 32' is the lowest. The Lo setting is effectively 64' but this is so low that you'll probably only hear a series of clicks when selected.



#### Oscillator 1 Waveform Selector

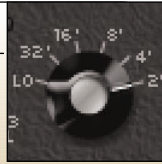
The Minimonsta has six basic waveforms. Broadly speaking, the triangle waveform has the least harmonic content and the narrow rectangular waveform has the most.

- |             |                 |                 |
|-------------|-----------------|-----------------|
| 1. Triangle | 2. Saw-Triangle | 3. Sawtooth     |
| 4. Square   | 5. Wide Pulse   | 6. Narrow Pulse |



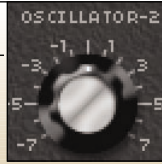
### Oscillator 2 Range Selector

As per Oscillator 1 this selects the octave for the Oscillator 2 tone. This ranges from 2' to 32' and Lo.



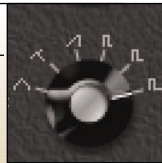
### Oscillator 2 Fine Tune Knob

This sets the fine tune value of this oscillator between - 8 and + 8 semitones.



### Oscillator 2 Waveform Selector

Allows Oscillator 2 the choice of the six waveforms as per Oscillator 1.



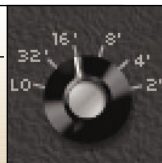
### Osc 3 Ctrl Switch.

This determines whether the keyboard controls the pitch of Oscillator 3 or whether it plays a fixed pitch across the whole keyboard. This switch is likely to be in the Off position when Osc 3 is used as an LFO (for uniform modulation across the entire keyboard) and On when used as a third oscillator. (See Tutorial 3, page 45).



### Oscillator 3 Range Selector

As per Oscillator 1 & 2 this selects the octave for the Oscillator 3 tone. This ranges from 2' to 32' and Lo.



### Oscillator 3 Fine Tune Knob

This sets the fine tune value of this oscillator between - 8 and + 8 semitones.



NB: When the Osc3 Ctrl Switch is Off the frequency range of this knob is wider than when the switch is on. (See Tutorial 3, page 45)

### Oscillator 3 Waveform Selector

Allows Oscillator 3 the choice of the six waveforms as per Oscillator 1 & 2 with the exception of a substituted reverse sawtooth in place of Osc 1 & 2's triangle waveform.



## THE MIXER PANEL



This is where the levels of the three oscillators and if required, a noise generator and/or an external signal are mixed. In this section we have also painstakingly recreated a famous Mini trick called the Loop Feedback function. (See Tutorial 4, page 46).

### Osc 1 Volume Knob & Switch

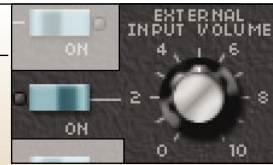
Determines the level of Osc 1 signal that's fed into the Mixer. The adjacent switch instantly turns the oscillator ON or OFF.





### External Input Volume Knob & Switch

It's possible to place an external signal into the Minimonsta and then to process this signal using the onboard filter, envelopes & delay etc. (See Tutorial 1, page 44. Logic 7 users please see Tutorial 2, page 44).



### Osc 2 Volume Knob & Switch

Determines the level of Osc 2 signal that's fed in to the Mixer. The adjacent switch instantly turns the oscillator on or off.



### Noise Volume Knob & Switch

Once the noise generator switch is turned on, the Noise Volume Knob adjusts the level. There are two types of noise generated by the Minimonsta determined by the adjacent switch.



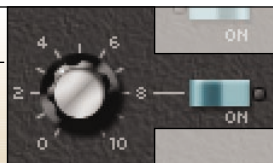
### White/Pink Noise Switch.

As mentioned above this is used in conjunction with the Noise Volume Knob & Switch and simply selects between White or Pink noise. As a general rule, White Noise is high pitched and Pink Noise is low pitched.

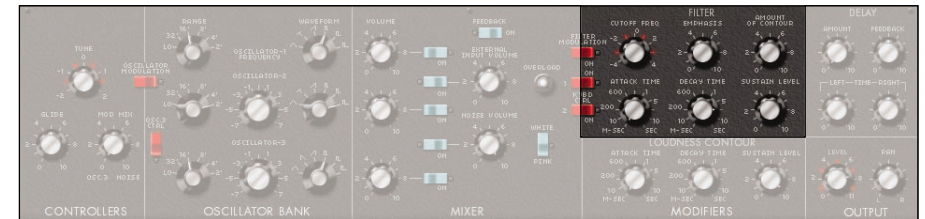


### Osc 3 Volume Knob & Switch

Determines the level of Osc 3 signal that's fed in to the Mixer. The adjacent switch instantly turns the oscillator on or off.



## THE FILTER MODIFIERS PANEL



The Minimonsta filter is a detailed and highly accurate reproduction of the original Moog lowpass ladder filter. Much has been said about this type of filter design since its origin and over the years many companies have tried to emulate it in both hardware and software forms. The Minimonsta filter was modeled from an early generation Minimoog complete with its own foibles and unique character, and as such it will sound slightly different to other Mini emulations. This is entirely deliberate.

### Cutoff Frequency Knob

This attenuates, or cuts out the frequencies above the cutoff point while allowing those frequencies below this point to pass through. If this knob is turned all the way to the right all the frequencies will pass through and no filtering takes place. However, if the knob is turned all the way to the left the entire signal will be cut off.



### Emphasis Knob

This is also known as resonance or Q and effectively adds emphasis at the cutoff frequency.



### Amount of Contour Knob

This determines the amount of filter envelope applied to the cutoff frequency. The shape of this envelope is determined by the filter attack, decay and sustain settings.



### Filter Attack Time Knob

This knob determines the initial fade in (or attack) of the filter envelope. Times can vary between immediate (1 millisecond) and long (12 Seconds)



### Filter Decay Time knob

This determines the time the filter envelope takes to fall from its initial peak to its sustain level. Times vary between 4 and 48000 milliseconds



### Filter Sustain Level Knob

This knob determines the level at which the filter envelope levels off after the initial rise (attack) and fall (decay).



### Filter Modulation Switch

Determines whether or not filter cutoff is affected by the modulation wheel



### Kybd Ctrl 1 Switch

This and Kybd Ctrl 2 Switch are used separately or in conjunction with each other to set the filter tracking across the keyboard. Without the switches enabled, notes played on the lower part of the keyboard will sound brighter than those played in the upper registers.

The Kybd Ctrl 1 Switch applies a minimal amount of filter tracking.



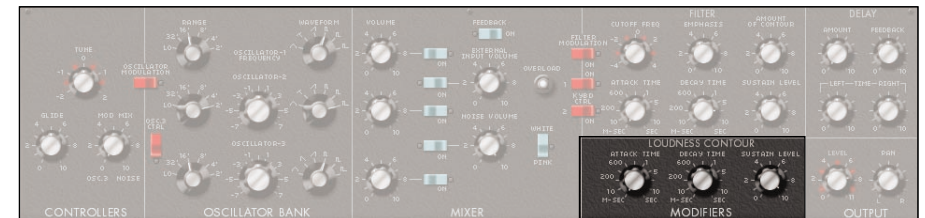
### Kybd Ctrl 2 Switch

In the same way as above this and Kybd Ctrl 1 Switch are used separately or in conjunction with each other to set the filter tracking across the keyboard

The Kybd Ctrl 2 Switch applies more filter tracking than Kybd Ctrl 1 and with both switches set to the On position, full response filter cutoff tracking is enabled.



## THE LOUDNESS CONTOUR MODIFIERS PANEL



This section governs the amplitude envelope of the Minimonsta's audio signal.

### Attack Time Knob

This knob determines the initial fade in (or attack) of the amplitude envelope. Times can vary between immediate (1 millisecond) and long (12 Seconds)



### Decay Time knob

This determines the time the amplitude envelope takes to fall from its initial peak to its sustain level. Times vary between 4 and 48000 milliseconds



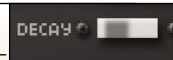
### Sustain Level Knob

This knob determines the level at which the amplitude envelope levels off after the initial rise (attack) and fall (decay).



### Decay Switch - (see Performance Controls section)

This probably should have been called a release switch as it allows the sound to fade out at the specified decay time instead of snapping shut immediately a note is released. This decay (or release) takes effect after the sustain level part of the contour.



## THE DELAY PANEL



### Delay Amount Knob

Controls the level of the delay signal.



### Delay Feedback Knob

Controls the amount of feedback signal output by the delay. A short feedback time would produce a minimal amount of repeat echoes and a long feedback time would produce an infinite quantity of repeat echoes.



### Delay Left and Right Knobs

These control the delay times for left and right delays.

NB: When using a left mouse click, both knobs are linked and will be set to the same values as each other.

However, when using a right mouse click each knob can be set to an independent delay time. For example by setting a 3/4 beat delay on the left output and a 1 beat delay on the right output, it's possible to create a larger stereo image than if both left and right delay times were identical.

Mac users should hold the **Apple** key and click on a Delay Left or Delay Right knob to independently adjust their times.



## THE OUTPUT PANEL



### Level Knob

Turn clockwise for louder, turn anti-clockwise for quieter.



### Pan Knob

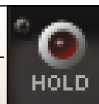
Moves the Minimonsta signal through the stereo image.



## 8 Performance Section



### Hold Button



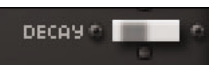
When using the Minimonsta as a Plug-In Effect you need to activate this then play and release a note on the Minimonsta's GUI keyboard in order to allow the external signal to pass through the Minimonsta.

### Glide Switch



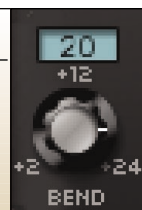
Turns glide (or portamento) on and is used in conjunction with the Glide Time Knob (see Controllers Section)

### Decay Switch



This allows the sound to fade out at a specified decay time (see Decay Time Knob in the Loudness Contour Modifiers Section, Page 21) instead of snapping shut immediately a note is released. This decay (or release) takes effect after the sustain level part of the contour.

### Pitchbend Range Selector.



Allows the pitchbend range to be set between 2 and 24 semitones.

### Pitch Bend Wheel

If you don't know what this is, frankly you've bought the wrong instrument.



### Modulation Wheel

In its simplest form the mod wheel is used to control how much MOD MIX is applied to pitch and/or filter cutoff. It can also be used in a more complex way to control multiple parameters at the same time.





## 9 Monsta Controls



As we have already shown the Minimonsta can be used as a straightforward emulation of the classic Minimoog. However, through application of the Melohman feature set the instrument becomes a true monster. Applying the Melohman features to the basic instrument gives limitless scope in terms of both programmability and playability.

### PATCH MANAGEMENT SECTION



This section is used to organise Patches and to Load and Save Meta-Patches to and from your hard disc. (See Getting Started, page 12 and Tutorial 5, page 48).

### MEM Button

MEM

Once you've created a sound on the Minimonsta that you want to keep, clicking on the MEM Button puts that sound into temporary memory before you then allocate it to a Patch.

### Patch Buttons 1-12



This is where you store and recall the 12 Patches contained within a Meta-Patch.

When in Morph Mode the layout of these buttons replicates the Melohman Octave. For example Patch 1 is the C in the Melohman Octave, Patch 2 is the C# and so on.

Once you have a sound that you wish to assign to a Patch, simply press the Memory Button until it is illuminated red and then click on a Patch Button to which you want the sound saved.

Within a Meta-Patch you have 12 Patches. However you should give special consideration to Patch 1 which will be the first one heard when the Meta-Patch is loaded.

### ALL Button

ALL

If you want to take a sound and apply it to ALL Patch memories simultaneously, simply click on the MEM button and then on ALL. You will then be warned, "This will overwrite the whole Meta-Patch" agreeing to this places your sound across all Patch memories. (see page 12)

NB You do not permanently store a Patch until you have saved the Meta-Patch to your hard disc (see Tutorial 5, page 48) Be careful that you don't change Meta-Patches before permanently writing the currently edited one to disc or you will lose your work.

### SETUP Button.

12 SET UP

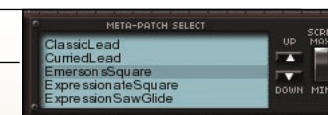
This allows you to specify how the instrument responds to certain functions. (See page 40)

### Meta-Patch Window functions

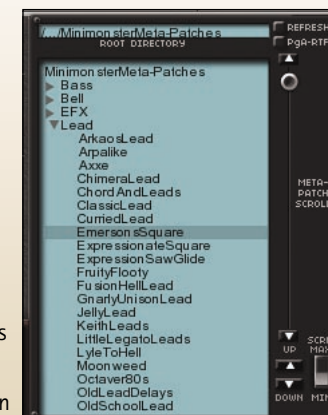
To aid with the selection of Meta-Patches you can minimise and maximise the Meta-Patch select Window via the dedicated Screen Switch.

In the Minimise position the Up/Down Arrow buttons select the previous or the next Meta-Patch from the centre of the window. You will notice that as you scroll through the sounds in this manner, the selected sound will always be in the centre of the screen.

In the Maximise position the effect of these Up/Down Arrow buttons remains the same whereas the other evident Up/Down Arrow buttons are used to scroll through the entire list of Meta-Patches **WITHOUT** changing the Meta-Patch. When using these simply click on a Meta-Patch to select it. When the Window is minimised the selected Meta-Patch will be in the middle of the screen.

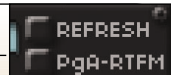


Minimised Meta-Patch Select Window



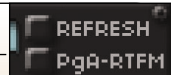
Maximised Meta-Patch Select Window

### Meta-Patch Refresh Button



This refreshes the selected Meta-Patch folder. For example if you have edited Meta-Patch names outside the Minimonsta, click on this button to refresh the list.

### Program Assign - RTFM Button.



Clicking on this button assigns a MIDI Program Change number to each of the Meta-Patches, in the selected directory, alphabetically. The first Meta-Patch in the list is assigned MIDI Program Change number 1, the second Meta-Patch MIDI Program Change number 2 and so on.

## THE MELOHMAN PANEL AND MORPH OPTIONS

These three control knobs determine how the Melohman Octave responds.



### Mode Knob



This selects the way in which the sound will morph between each Patch. There are five Morph Modes as follows:

- Morphing
- Morph Back & Forth
- Morph Sequence
- Mutate
- Partial Mutate

### Octave Knob



This knob controls the position of the Melohman Octave on the GUI and therefore your controller keyboard. Selecting OFF turns it off.

As an example, selecting Octave 3 positions the Melohman Octave so that Patch 1 is active when C1 is played and Patch 12 is activated by playing B1. You can also see this by the LEDs on the keys in the Melohman Octave. When an LED is fully on it indicates that the corresponding Patch is active.

When playing a Melohman key you will not hear a sound as these keys are specifically used for Morphing functions.

### Time Knob



This determines the duration of the morph which can be displayed in beats or milliseconds. The display status is selected using the MS/BEATS button.

## MORPHING OPTIONS

In the hands of an accomplished player, using the Morph section in conjunction with carefully programmed Patches can lead to some uniquely expressive and creative results. With the exception of the original Minimoog patches that were recreated for the Minimonsta, all the Meta-Patches provided contain Patch variations so spend some time playing with them and see just how the Patches within each Meta-Patch differ. Who knows? You may find a Patch that inspires you to create an entirely new Meta-Patch.

### Morphing



This is the simplest way of morphing between Patches.

Morphing changes the Patch according to which key is played in the Melohman Octave and according to the duration set via the Time Knob. When pressing a Melohman key the sound starts to Morph to the Patch associated with the depressed key, and stops morphing when you release the key or its Morph Time has been reached. Pressing another key initiates a morph to the new Patch associated with that key but will morph back to the previous one if you release this second key while keeping the first one pressed.

## Morph Back & Forth

This is quite similar to the Morphing mode, except that the Minimonsta will morph back to the state it was in when the first key was pressed.

If you have chosen a long morphing time, releasing all the keys will result in a long morph back to the original Patch. However, at any point within a morph you can "double-hit" a key to make this new Patch the reference which will be morphed back to after releasing any subsequently pressed Melohman keys.



## Morph Sequence

In this mode holding a Melohman key plays a sequence of morphs. The sequence for each key is listed below with the notes indicating the corresponding Patch slots:

C: C, D

C#: C, D, E

D: C, D, E, F

D#: C, D, E, F, G, A

E: C, C#, D, D#, E, F, F#, G

F: C, C#, D, D#, E, F, F#, G, G#, A, A#, B

F#: C, C, D, D, C, C, E, D, C, E

G: Random (presets C and D only)

G#: Random (all presets)

→ Velocity modifies the morphing time

A: Slows down the sequence by a factor of 2 (but not the morphing time)

A#: Resets mutation time (as indicated on the Time display)

B: Accelerates the sequence by a factor of 2

The duration between each morph is controlled by the Melohman Time Knob setting.



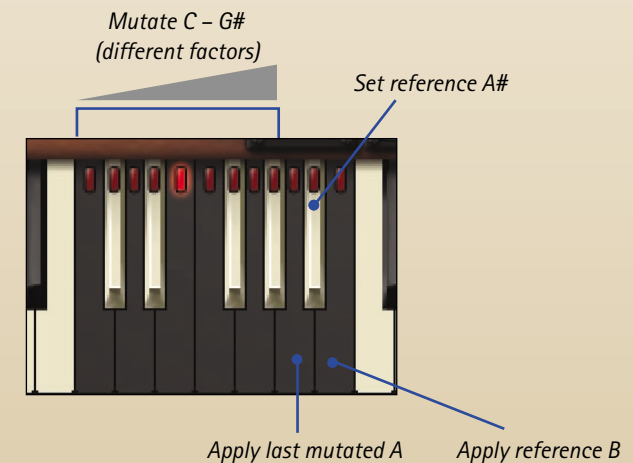
## Mutate

This mode revolves around Patch randomisations related to a specified reference Patch. This means that newly generated Patches are variations of the original reference Patch. When you select this mode, the current Patch is always selected as the reference Patch.

The nine lower keys of the Melohman Octave (from the C to the G#) are dedicated to progressively higher mutations of the reference Patch. When you press one of the nine lower keys, a new setting is computed, and the synthesiser morphs to it, as per the normal Preset Morphing mode (with optional velocity sensitivity). The morphing stops if you release a key within a morph if the Morph Time has not been reached thus allowing you to reach 'sonic states' between Patches.

You can return to the reference Patch by pressing the top B key, then morph back to the last mutated Patch by pressing the top A key. You can create a new reference Patch from the mutations at any time by pressing the Bb key.

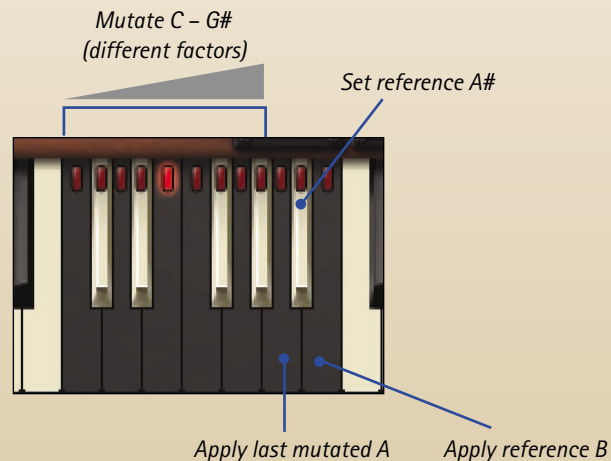
In this mode and the Partial Mutate Mode all parameters are intelligently managed. For example, LFO and ADSR timed parameters are always bound to tempo values. If an LFO or an ADSR amplitude is set to 0, its chance of being mutated are smaller. However, we recommend using the morphing function with care as it can occasionally lead to high output levels.



## Partial Mutate

Partial Mutate works similarly to the Mutate but with subtle differences.

- C: Filter (+ FM + Keyboard Control) without modulation
- C#: Filter (+ FM + Keyboard Control) with modulation
- D: Filter (+ FM + Keyboard Control) modulation only (LFO + ADSR)
- D#: Oscillators w/ modulation (+ Osc 3 Control + Osc Modulation + Tune + Glide)
- E: Oscillators without modulation
- F: Timbre (Osc range + Osc WF + Osc volumes + Osc SW + Osc Modulation)
- F#: Envelopes (VCA env + VCF env + Contour + Pan (mod only) + Volume (mod only)
- G: Mixer (+ I/O feedback + Noise color)
- G#: Delay
- A: [Applies last mutation]
- A#: [Stores Reference Patch]
- B: [Applies Reference Patch]



There are additional functions that are directly linked to the Melohman morph parameters, such as linking the Morph Time to a Melohman key Note-On velocity. For details of this and other Melohman morph functions see SET UP on Page 41.

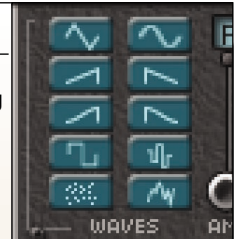


## 10 LFO and XADSR Section



### LFO Waves

There are 10 LFO waveforms and these are selected by clicking on the appropriate waveform button. The waveforms are as follows:



- 1) Sine - The default waveform.
- 2) Triangle - A waveform with a linear transition between maximum and minimum (and vice versa).
- 3) Ramp Up - The waveform goes linearly from the minimum point to the maximum point.
- 4) Ramp Down - Like Ramp up, but in the other direction.
- 5) Cosine Up - A bit like Ramp up, but the LFO rises more gently at the extreme points (a kind of shelf).
- 6) Cosine Down - Like Cos up, but in the other direction.
- 7) Square - The LFO stays a half-period at the maximum point, then the other half-period at the minimum point.
- 8) Random - This waveform is a chaotic oscillator. It is based on a sine wave, sometimes slowing down, sometimes accelerating, or even going back and forth. These random variations, always keep the same average phase
- 9) Brown Noise - The LFO value changes randomly, combining wide and slow moves with small and fast oscillations. With a very long period, this kind of LFO is perfect to give a parameter a natural and nervous random variation.
- 10) Red Noise - A bit like Brown Noise, but fast variations are more damped, giving even smoother random movements.



### LFO Controls

These sliders give you a huge amount of control over the LFO parameters and waveforms once assigned to a specific Minimonsta parameter.



### LFO Amp Slider

This determines the overall amplitude of the LFO. 0 % means that the LFO does not affect the sound.



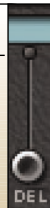
### LFO Time Slider

Determines the time of the LFO waveform, ranging between 1/64th of a beat and 256 beats, or 0.0078 to 128.00 milliseconds, depending on the status of the MS/BEATS button.



### LFO Delay Slider

Sets a delay before the LFO setting becomes effective. The delay time ranges between 0 and 256 Beats or 0 to 128.00 milliseconds, depending on the status of the MS/BEATS button.



### LFO Sample & Hold Slider

Adds a random element to an LFO waveform by Sampling and Holding specific points of it. The higher the slider value the longer the Sample & Hold period, the lower the slider value the quicker the Sample & Hold period.



### LFO Smooth Slider

This allows you to smooth out fast transitions of an LFO signal and is applied after the Sample & Hold. The smoothing factor is scaled to the main LFO Time and therefore the final shape doesn't change when the Time is changed. 0% disables the smoothing and leaves the waveform untouched.



### LFO Sync Slider

This allows the LFO phase to be reset at every Note On. The phase value will be the indicated percentage. You can turn the Sync off and allow the LFO to run free by moving the slider all the way to its top position, marked Off.



### Copy and Paste Buttons



Use the COPY button to copy ALL current modulation settings (both LFO and XADSR) into the internal clipboard. Use PASTE to apply them to another parameter. This is very useful to quickly duplicate modulation settings across a large amount of parameters.

For example, if you've set up complex LFO & XADSR settings on the Filter Cutoff Knob and you want to transfer these settings to the Emphasis Knob, simply click on the Filter Cutoff Knob followed by the COPY button then click on the Emphasis Knob followed by the PASTE button. The settings from the former will be duplicated to the latter.

### XADSR Envelope

These knobs and sliders allow independent shaping of any parameter that can be controlled by this section.



### XADSR Amplitude Knob

With positive and negative values, this knob determines the amplitude of the XADSR Envelope.



### XADSR Velocity Knob

Again with both positive and negative values, this knob determines how velocity affects the XADSR Envelope.



### XADSR Attack Slider

Definable between 0 and 256 beats (or 0 to 128.00 milliseconds, depending on the status of the MS/BEATS button) this governs the Attack Time of the XADSR Envelope. Attack begins once a Note On event is received.



### XADSR Decay Slider

Definable between 0 and 256 beats (or 0 to 128.00 milliseconds, depending on the status of the MS/BEATS button) this governs the Decay Time of the XADSR Envelope, after which the envelope moves to the sustain point. Decay occurs right after the Attack.



### XADSR Sustain Slider

With positive and negative values, this controls the level of the XADSR's sustain point.



### XADSR Sustain Time Slider

Definable between 0 and 256 beats (or 0 to 128.00 milliseconds, depending on the status of the MS/BEATS button) this governs the Sustain Time of the XADSR Envelope. i.e. the time it takes for the envelope to move from the sustain point to zero.



### XADSR Release Slider

Definable between 0 and 256 beats (or 0 to 128.00 milliseconds, depending on the status of the MS/BEATS button) this governs the Release Time of the XADSR. This Release stage occurs as soon as the Note Off event is detected.



## LFO & XADSR FAQ'S

### Q. Why are some parameters illuminated in Blue?

A. This shows at a glance that the function is modulated by the LFO or affected by the XADSR. To quickly remove this from any parameter, bring the LFO Amp Slider back to 0% and/or double-click the XADSR Knob to also bring it to 0%.

### Q. What parameters can I apply an LFO or XADSR to?

A. You can apply an LFO or XADSR to almost any Minimonsta Parameter. The only exceptions are the Oscillator Range and Oscillator Waveform Knobs.

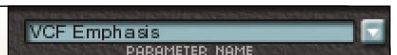
## 11 MIDI Section



The Minimonsta contains an extensive and highly flexible MIDI Control Section where you can assign control using controls such as velocity sensitivity, channel pressure, MIDI response curves, and much more.

**NB:** The settings in this section are global – this means that any setting or changes made to an individual Patch will affect every Patch within that Meta-Patch. (See Tutorials 11 and 12, page 51).

### Parameter Name Window.



This shows the currently selected parameter to be controlled via MIDI. In our Velocity to Filter Cutoff tutorial on page 53, as soon as you clicked on the Filter Cutoff Knob the window displayed VCF Cutoff, indicating that this was the parameter you intended to control via MIDI.

### MIDI Source Window



By clicking on the blue (arrowed) button you can select from a list of 21 MIDI control Sources that offer an assortment of MIDI control options. Only one source per parameter can be selected, but it can modulate as many parameters as you wish. (See Tutorial on page 53).

### Modulation Preset Window



Here you can choose from a menu of factory Preset MIDI modulation settings. Selecting one of the options clears all current MIDI modulation settings and installs the ones contained within the selected Preset.

### MIDI Panic Button



Got the odd hanging note? Even in the wonderful world of M1D1 it happens occasionally - so when it does, hit the panic button and all should be cured.

### Curve Window



It is possible to change the intensity mapping - for example to correct the response curve of a control device or to obtain specific effects.

There are several curves, some of which are strictly positive, while others are bipolar and can generate negative modulation values.

Here are some special curves:

- 1) 4 and 16-steps: The 128 MIDI values are divided equally into 4 and 16 steps.
- 2) Octave: This curve is dedicated to Note Key modulation. There is a step for each octave of the keyboard (from C to B).
- 3) Octave Note: The modulation value is the same for each key regardless of the octave. For example, G3 and G5 generate the same value, D#1 and D#7 also. This curve is complementary to the Octave curve.

### Sensitivity Knob & Window



This parameter controls the intensity of any MIDI modulation or control. At 0 the modulation is off.

### Free Select Button



When active (on), this enables the MIDI Modulation of a sub parameter such as the LFO Amp or the XADSR attack time etc...

### MIDI FAQ'S

#### Q. Why are some functions illuminated in Red?

A. This shows at a glance that the function is modulated by MIDI. To quickly remove this from any parameter simply click on an illuminated parameter and double-click the Sensitivity Knob to bring it to 0.

Alternatively, if you want to remove all MIDI control from every parameter, you can go to the Modulation Preset Window and select "Nothing Connected"

#### Q. Can I control switches via MIDI control?

A. Yes. That's what those little LEDs are for. (see Tutorial 9. Page 49)

## 12 Settings Section



Unlike the original instrument, which was only monophonic, the Minimonsta has several additional modes which can be selected via this section.

### Mono Mode



Plays one note at a time and each note played re-triggers the envelope generators.

### Unison Mode



Turns a monophonic Mini into a total Monsta by taking all the polyphonic voices and assigning them to a single note. The amount of voices is controlled by the setting in the polyphony window (ie 6 note polyphony with 3 VCOs playing in unison will provide a unison of 18 oscillators).

### Unison Detune Knob



Used in conjunction with the Unison mode to detune all the assigned oscillators. A feature particularly adored loved by trance-heads.

### Legato Mode



To play legato means that you play a new note before the previous note is released. In the Minimoog playing legato was the way of avoiding the envelope generators re-triggering each time a new note is played.

However, the original Minimoog legato was only low note priority whereas in the Minimonsta it's both high and low note priority.

### Poly



We'll assume that you know what polyphonic mode means by now. In this mode the number of voices available is determined by the value in the Polyphony display window.

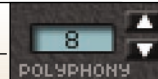
**NB:** The above settings are Patch-specific and not global. For example within a Meta-Patch it's possible to have one Patch with a Unison setting and another with a Poly setting. On the other hand the following parameters in the Settings Section ARE global.

### MIDI Channel Window



This determines the MIDI channel that the Minimonsta receives on. This is usually set to Omni, meaning every channel.

### Polyphony Window



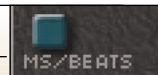
In Poly mode this selects the maximum of voices assigned to the sound. With the Minimonsta, the maximum amount of voices permissible is 32, but this largely depends on the power of your computer.

### Tempo Window



Selects the tempo at which the Minimonsta's LFOs and Delay settings run. This is usually the same as the sequencing host application.

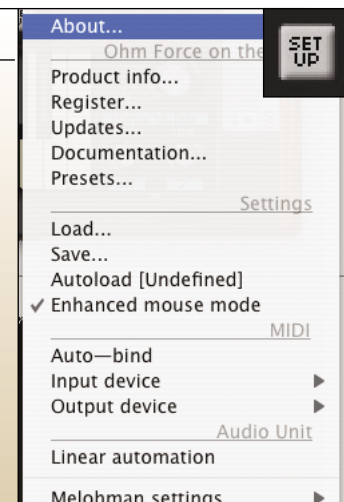
### MS/Beats Button



Illuminate this to see the LFO, XADSR & Delay settings in Beats per Bar or de-activate to view in Milliseconds.

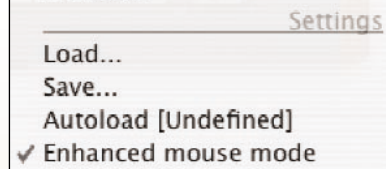
### Set Up Button

Clicking on the Set Up Button reveals a menu from where various user-specific functions can be accessed. (continued on Page 41)





## SETTINGS



### Load

Used to load the \*.cfg files as outlined in the Auto-Bind section below.

### Save

Used to save the \*.cfg files as outlined in the Auto-Bind section below.

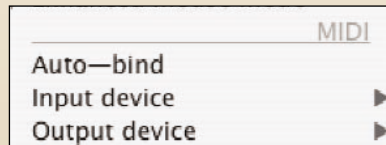
### Autoload

With Autoload enabled, loading the Minimonsta automatically loads the last used configuration file. This is useful if you have a specific Auto-bind configuration that you regularly use.

### Enhanced Mouse Mode

Selecting this mode makes the mouse cursor disappear when a slider is moved. It's more comfortable for editing because it allows you to move the sliders accurately despite their small size. There is an option to deactivate this mode because it may not work correctly with some trackballs and graphic tablets on a Mac.

## MIDI SECTION



### Auto—bind

Although each parameter of the Minimonsta has its own pre-assigned Continuous Controller number (see CC list, page 52), you can use Auto-bind to create your own specific MIDI controller templates before saving them as a \*.cfg file in the Settings Section (as above).

To use Auto-bind, first enter the Auto-bind mode by checking Auto-bind in the Setup menu. Now simply move the required knob, slider or switch on the Minimonsta, and then turn a knob or slider on your external MIDI controller. As

soon as the Minimonsta detects this external controller movement, the connection is made and the knob or slider you have moved will remain associated with the selected parameter. As a useful aid, if you have already selected a parameter before, its name will be displayed in the menu, between brackets, for example: Auto-bind [target: Cutoff Freq].

Each of the Minimonsta's parameters can be bound to different MIDI CCs, and you can also save various different configurations as \*.cfg files.

To leave the Auto-bind mode simply uncheck it in the setup menu, and your previously bound CCs will control the relevant parameters.

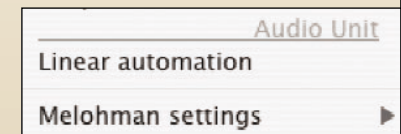
### Input & Output Devices

Depending on your host, your MIDI devices and your system settings, you may have one or more available MIDI ports for input and for output. It is possible to select the virtual ports for receiving and sending MIDI events.

To choose the input port (the one on which MIDI data is received by the plug-in), just go to the MIDI>Input device menu and select the one you want. Similarly, to select the output port simply go to MIDI>Output device and select the one you want. The selected MIDI ports will now have a tick against them.

NB It is possible to choose only one MIDI port for input, and one for output.

## AUDIO UNIT SECTION



### Linear automation.

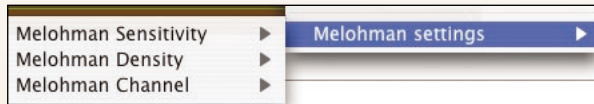
Use Linear Automation when controlling an AudioUnit from hardware consoles such as Logic Control. In linear mode the Minimonsta outputs data type as Hertz and dB, etc... and controllers such as Logic Control use these values to correctly identify and display parameters.

Note that in this mode all automations are linear and with parameters such as Filter Cutoff, the low frequency range (10 Hz - 100 Hz) occupies a very small part of the automated range, whereas the 10kHz-20kHz range occupies the half of the automated range.

In non-linear mode, only the "knob course" is exposed to the host. This means that the automations are exactly like the knob courses. On the other hand, hardware controllers will display only opaque parameters ranging from 0 to 1.

**NB:** Both modes are not inter-compatible and to play back automations in a different mode from the recording will give wrong results.

## MELOHMAN SETTINGS



### Melohman Sensitivity

You can adjust the sensitivity settings of the Melohman Octave to allow keyboard velocity to alter the Patch Morph Times. This is directly related to the MIDI curve mapping too.

### Hi Sensitivity

Playing a key in the Melohman Octave with a low velocity will give a slow morph time (the same as indicated in the Morph Time Window).

Playing a key in the Melohman Octave with a high velocity will give an instant morph time.

### Low sensitivity

Playing a key in the Melohman Octave with any velocity will give the same morph time as indicated in the Morph Time Window.

### Melohman Density

In a Melohman morph, not all the parameters change simultaneously because of performance issues. Instead, they rotate. The Melohman density indicates how many parameters are updated in a second (Low = 10000, Medium = 20000, Hi = 30000) and allows you to choose between morph smoothness and light CPU loads.

### Melohman Channel.

This determines which MIDI channel the keys in the Melohman Morph octave respond to.

## 13 TUTORIAL SECTION



### TUTORIAL 1: USING THE MINIMONSTA AS A PLUG-IN EFFECT

Of course, the original Minimoog filter was such that it quickly became the accepted benchmark for 24dB/oct lowpass filters. Fortunately, the designers saw to it that external sounds could also be processed through it via the External Input functions. Similarly, we saw to it so that you can use the Minimonsta's filter to process other sounds too.

1. Open the Minimonsta as a Plug-In Effect on an audio track where you have some audio being played. A drum loop for example.
2. Using the blue buttons in the Mixer section, turn all the oscillators off.
3. In the same section, turn the External Input Volume switch on and also turn up the External Input Volume Knob to 50%.
4. Make sure the Filter Cutoff knob is open.
5. Click on the Hold Button to the left of the Minimonsta's keyboard.
6. Using your mouse, click on a note on the Minimonsta's keyboard.
7. You should now hear the audio part assigned to that track but will be able to process the sound using the Minimonsta filter, envelopes, LFO, the delay section and even the Melohman LFO and XADSR.



### TUTORIAL 2: USING THE MINIMONSTA AS A PLUG-IN EFFECT USING LOGIC 7.

Due to some differences between Logic 7 and previous versions there is a different method involved in feeding audio into the Minimonsta. Instead of inserting the Minimonsta as an Insert Effect within an Audio Channel, you must Side-Chain it to an audio track as follows:

1. Open the Minimonsta as a Plug-In Effect on an AUDIO INSTRUMENT track .
2. Using the blue buttons in the Mixer section, turn all the oscillators off.
3. In the same section, turn the External Input Volume switch on and also turn up the External Input Volume Knob to 50%.
4. Make sure the Filter Cutoff knob is open.
5. Click on the Hold Button to the left of the Minimonsta's keyboard.

6. Using your mouse, click on a note on the Minimonsta's keyboard.
7. Click in the Logic box marked SIDE CHAIN and select the track that you want to route audio from.
8. You should now hear the audio part from that track but will be able to process the sound using the Minimonsta filter, envelopes, LFO, the delay section and the Melohman LFO and XADSR.
9. To remove the original audio part and only hear the audio being routed through the Minimonsta go to the Logic Mixer Channel associated with the original audio part and switch the output to NO OUTPUT.



### TUTORIAL 3: USING OSCILLATOR 3 AS A PITCH LFO

On the original instrument if you wanted to use an LFO you had no choice but to sacrifice Oscillator 3 as a tone source. This is no longer necessary in the Minimonsta but there are times when authenticity is everything. To replicate this original feature, make sure you have a non-modulated Patch and set the Minimonsta as follows.

1. Turn the Oscillator 3 off via the blue Switch in the Mixer section.
2. Turn the red Oscillator Modulation Switch to On
3. Turn the red Osc 3 Ctrl switch to Off
4. Select Lo on the Oscillator 3 range selector.
5. Turn the Mod Mix Knob in the Controllers section fully anti-clockwise to the Osc3 mark.
6. Move the Oscillator 3 Waveform Knob to Triangle.
7. Raise the Modulation Wheel.

You will now hear the pitch modulating. The Modulation Wheel controls the depth of modulation while the Oscillator 3 Fine Tune Knob controls the speed of modulation.

Additionally, you can use this to modulate the Cutoff Frequency as follows:

1. Again, make sure the Oscillator 3 is Off via the blue Switch in the Mixer section.
2. Turn the red Filter Modulation Switch to On.
3. Turn the red Oscillator Modulation Switch to Off.
4. Make sure the red Osc 3 Ctrl Switch is Off.

5. Select Lo on the Oscillator 3 Range Selector.
6. Turn the Mod Mix Knob in the Controllers section fully anti-clockwise to the Osc3 mark.
7. Move the Oscillator 3 Waveform Knob to Triangle.
8. Raise the Wodulation Wheel.

You should now only hear the filter cutoff modulate. The Modulation Wheel controls the depth of filter modulation while the Oscillator 3 Fine Tune Knob controls the speed of filter modulation.

**NB You can combine filter cutoff and pitch modulation by having both the red Filter Modulation Switch and the red Oscillator Modulation Switch On.**

You can also mix Osc3 modulation with white or pink noise (selected by the blue White/Pink Switch in the Mixer Section) via the Mod Mix Knob in the Controllers section.

When you want to get even more extravagant, you can experiment with changing the Oscillator 3 Waveform shapes and by changing the Frequency Range from Lo to any of the other settings. Careful experimenting with these functions can lead to some superb tones giving a similar effect to that of a ring modulator.



### TUTORIAL 4: THE FEEDBACK TRICK.

For sounds with extra balls, a few original Minimoog users had a neat trick whereby they took the low level output and routed it back into the instrument via the external input. With careful adjustment of the external input volume knob it was possible to get another palate of sounds ranging from bass sounds with more bass to wild howling feedback.

We've taken away the hassle of manually patching this effect with jack-plugs and replaced it with a far easier method.

1. Turn ON the blue Feedback Switch in the Mixer section.
2. Turn ON the blue External Input Volume Switch in the same section.
3. While playing a sound, turn up the External Input Volume Knob.
4. Experiment with different settings with the Filter Cutoff, Emphasis and External Input Volume knobs.



## TUTORIAL 5: ASSIGNING SOUNDS

Here we will look at how to assign individual sounds to Patch memory allocations 1 - 12.

1. Start by creating a Meta-Patch with the same sound across all Patches. (See page 12).
2. Create a variation of the current Patch by changing its Filter Cut-Off, Emphasis or Pan position etc...
3. Click on the MEM button once so that it turns red.
4. Click on the '2' button - this now allocates the sound variation to Patch 2
5. Click on the Patch window and name your sound variation something appropriate, such as 'Filtered' or 'Pitched'.
6. Clicking the Patch 1 & 2 buttons will call up the respective variations and it's these variations that we'll be morphing to and from shortly. Firstly though continue to create variations saving them as above to all 12 Patch memory allocations.

**NB: Once you have created all the variations you should save the entire Meta-Patch to disc again, firstly by pressing the Save button on the left of the Meta-Patch Select Window, then by naming the Meta-Patch and finally storing it to your hard-drive.**

TIP: When creating Patch variations within a Meta-Patch, sometimes it's easy to forget exactly which Patch you're editing. To help with this and to avoid accidentally overwriting a Patch, we recommend the following:

1. Move the Octave Knob to 2 so you can see the Melohman Octave on the left of the Minimonsta GUI Keyboard. You can see which Patch you're editing at any time by referring to the illuminated key.
2. Click and hold on the blue button on the right of the Patch 1-12 Window. You'll see each Patch displayed in a vertical list and a tick will be next to the currently selected Patch.

### Loading an existing Patch into a Meta-Patch

If you want to load an individual Patch into a different Meta-Patch all you have to do is have the desired Patch playing and then right-click (⌘-click on a Mac) on the Meta-Patch that you want to transfer the Patch into.

The original Patch will still be the currently active one but you must then save this to one of the Patch allocations before finally saving the entire Meta-Patch to disk if you want to store this new configuration.



## TUTORIAL 6: HOW DO I TAKE A PATCH AND USE IT FOR THE BASIS OF A META-PATCH?

When you find a Patch that you'd like to use as the basis of a Meta-Patch and subsequent variations, all you have to do is copy that sound to all Patch allocations and save as a separate Meta-Patch as follows:

1. Have the desired sound currently active.
2. Click on the MEM Button so that it's illuminated red.
3. Click the ALL button - You be warned that this will overwrite the whole Meta-Patch.
4. Click OK.
5. Click the SAVE button to the left of the Meta-Patch Select Window.
6. Rename your new Meta-Patch i.e. make sure you don't save it under the same name as the original.

Now you will have a Meta-Patch that contains 12 identical Patches from which you can begin to make variations and save as Patches within your new Meta-Patch.



## TUTORIAL 7: XADSR

1. Load the ABoogieOnBass patch from the Meta-Patch Select Window and play a note.
2. Click on the Cutoff Frequency Knob in the Filter Section of the main GUI.
3. Move the Amp Knob in the XADSR section to approximately 25% (or type this value into the XADSR display).
4. Move the XADSR Attack Slider to 1/4 and listen to the difference in the attack of the Cutoff Filter now compared to the original sound.
5. Change the Sustain Slider to - 60% and listen to the effect this has on the envelope.
6. Finally, change the Decay Slider from 0 Beats to 4 Beats and listen to the effect on the envelope.

To remove the XADSR Envelope from the Cutoff Frequency change the value of the Amp Knob from 25% back to 0% - or simply double-click it.





## TUTORIAL 8: FREE SELECT BUTTON

Here's an example of how to use it:

1. Activate the Free Select Button.
2. Click on the Filter Emphasis Knob.
3. Click on the LFO Amp Slider.
4. Now the MIDI Section is relative to the LFO Amp Slider.
5. Continue by Selecting Channel Pressure in the MIDI Source Window.
6. Turn the Sensitivity Knob up to + 200%.
7. Play a note - Providing your keyboard transmits aftertouch, you can use this to control the amount of LFO Amp applied to Emphasis.



## TUTORIAL 9: MIDI CONTROL LED'S

An example of how this can be used is shown as follows:

1. Load the Meta-Patch "Convolution Pad".
2. You can already see there is MIDI control over the Level and Cutoff Frequency knobs, as well as LFO control over Cutoff Freq and Pan.
3. Go to the Noise Volume Knob and make sure it's turned up to maximum.
4. Now go to the adjacent On/Off switch and click on it twice to turn it on and off again.
5. You should now see "Noise Switch Off" indicated in the Main Edit Window.
6. You should also see "Noise Switch" in the Parameter Name Window.
7. In the MIDI Source Window, click and navigate to Key Velocity.
8. Now move the Sensitivity Knob to +100
9. A red LED will illuminate next to the Noise On/Off Switch
10. Now, when you play the keyboard hard the Noise Switch is activated and you will hear this in the sound. However when you play softly, no noise will be heard.

**NB: All switching occurs without you actually seeing the switch move so please don't email tech support asking why the switches aren't animated.**



## TUTORIAL 10: LFO

Once you're familiar with the main controls of the Minimonsta you'll probably want to start delving into the more comprehensive areas of sound design and take the Moog sound into some uncharted territory. For example instead of relying on Oscillator 3 to provide the LFO, the Minimonsta has the ability to provide an LFO for almost every parameter. Similarly, it's possible to assign an ADSR to almost every parameter too. (See Tutorial 7, page 47)

1. Select the parameter which you wish to assign an LFO to. In this case we'll assign it to the Filter Cutoff Frequency.
2. Click on the Filter Cutoff Frequency Knob.
3. Go to the LFO section of the GUI and move the AMP Slider until the display above reads about 10%.
4. Play a note and you will now hear the effect of the LFO on the Filter Cutoff.
5. You should also see a blue illumination around the Filter Cutoff Knob. This indicates that there is an LFO or XADSR assigned to this parameter.

The above example shows how simple the LFO assignation can be but there are a host of other functions that can be applied too. (See LFO details on page 32).



## TUTORIAL 11: VELOCITY RESPONSE

Firstly, let's look at how to set up something simple such as assigning velocity response to volume.

1. Select the Volume/Level knob.
2. In the Parameter Name Window you should now see Volume displayed.
3. Click on the arrow next to the MIDI Source display and navigate it to Key Velocity.
4. Change the Sensitivity knob from 0 to a value of, say, 100.
5. Play the keyboard and fine-tune the Sensitivity Knob to suit the dynamics of your playing.

You will notice how the Level Knob has a red illumination around the outside. This indicates that it is being controlled by MIDI in some manner. This also applies to all switches too - if it's controlled by MIDI, it'll have an illuminated red LED next to it.

Now let's look at how to set up Velocity to Filter Cutoff response.

1. Select the Cutoff Frequency knob.
2. In the Parameter Name Window you should now see VCF Cutoff displayed.
3. Click on the arrow next to the MIDI Source display and navigate it to Key Velocity.
4. Change the Sensitivity knob from 0 to a value of, say, 100.
5. Play the keyboard and fine-tune the Sensitivity Knob to suit the dynamics of your playing.

There are also a host of other things you can do here, such as using velocity to control the level of each oscillator or even using velocity to switch oscillator waveforms. The possibilities are almost limitless.



## TUTORIAL 12: MODULATION WHEEL

As an example of using the Modulation Wheel to control Filter Cutoff Frequency, let's have a look at the following steps:

1. Select the Cutoff Frequency knob.
2. In the Parameter Name Window you will now see VCF Cutoff displayed.
3. Click on the arrow next to the MIDI Source display and navigate it to Modulation Wheel.
4. Make sure the Sensitivity Knob has a value of, say, 100.
5. Play the keyboard and move the modulation wheel to hear the effect.

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## DEFAULT MIDI CC SETTINGS

Modulation	CC 1	Noise Mix	CC 78
Master Volume	CC 7	Ext Mix	CC 79
Decay Switch	CC 69	Osc2 Transpose	CC 12
Pan	CC 10	Osc3 Transpose	CC 13
Glide Switch	CC 65	Osc1 Waveform	CC 16
Glide Amount	CC 5	Osc2 Waveform	CC 17
Filter Emphasis	CC 71	Osc3 Waveform	CC 18
Filter Cutoff	CC 74	Osc1 Range	CC 92
Filter Contour	CC 70	Osc2 Range	CC 93
VCA Attack	CC 73	Osc3 Range	CC 95
VCA Decay	CC 72	Noise Colour Switch	CC 67
VCA Sustain	CC 15	Feedback Switch	CC 84
VCF Attack	CC 20	Osc Mod Switch	CC 85
VCF Decay	CC 21	VCF Mod Switch	CC 86
VCF Sustain	CC 22	VCF KYBD 1 Switch	CC 87
Delay Amount	CC 91	VCF KYBD 2 Switch	CC 88
Unison Detune	CC 94	Osc 3 CTRL Switch	CC 89
Osc1 Switch	CC 80	Tune	CC 90
Osc2 Switch	CC 81	Delay Time L	CC 12
Osc3 Switch	CC 82	Delay Time R	CC 13
Ext Input Switch	CC 83	Delay Feedback	CC 14
Noise Switch	CC 26	Mod Mix	CC 23
Osc1 Mix	CC 75	Polymode	CC 24
Osc2 Mix	CC 76	Unison	CC 25
Osc3 Mix	CC 77		